An Inaugural Address
ON THE
REVIVAL OF OVARIOTOMY,
AND ITS
INFLUENCE ON MODERN SURGERY.

Delivered at the Midland Medical Society, Birmingham, November 5th, 1884,

BY SIR SPENCER WELLS, BART.,
LATE PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

MR. PRESIDENT AND GENTLEMEN, MEMBERS OF THE MIDLAND MEDICAL SOCIETY,—Next to the satisfaction which attends the fulfilment of the first duty of our calling—the relief of suffering and the prolongation of human life, which the Roman orator said raised the giver of health to man nearer to the Divine Giver of life—I know of no higher privilege than that of being permitted to address educated minds, of endeavouring to influence for good medical thought and opinion and practice, whether by the aid of the art of the printer, that "magic which embalms the thought," or by addressing such an assemblage as this, with the knowledge that what may be said before you (after as much careful preparation as the too scanty leisure of a very active life permits) will be carried as far as our language is read or translated. The honourable privilege, as rare as it is enviable, of addressing a great gathering of fellow-workmen, of corresponding pursuits and tastes, from whom one may confidently expect a sympathetic hearing and active response, can hardly be over-estimated. Much or little as we may know of each other, we are all united by the strong tie of professional interest; by the ambition to do well our daily work; and, I hope, by the desire so to make use of the meeting as to fuse temporary contact into durable friendship. I know that I see before me an assembly of no average intellectual standard. In days gone by, in this favoured district of our fatherland, there were "mighty men which were of old, men of renown," the generations who have helped to make Birmingham what it is—the Areopagus of the Midlands. So to-day, the men who still kindle its enthusiasm, still direct its energies, and are the master-spirits of its industry, its patriotism, its loyalty, are aided and influenced by a residential doctorate equal to the task of keeping such a population sound in body, sound in mind, and of thus economising the vast financial interests depending on its sanitary condition. The members of this Society now take the place, as a protective educational power, which was formerly filled almost entirely by the priest. Perhaps in many cases you do for the bodily health what is done by the rector or the nonconformist teacher for the moral direction of the parish. You are ready and willing to fulfil your high vocation, guiding your course of action as a beneficent, irrigating stream in the midst of a people whose bodily and mental welfare is entrusted to your charge.

What to say to such an audience is of course the first question. Of local affairs you know more than I do. Medical politics and controversial topics must be avoided. I have been told that you would probably be disappointed if I did not tell you something more of my own work—of what I have done and how I did it, why I did it, of my successes and my failures, how mistakes have become less frequent and progress more certain—than can be learnt from anything I have yet published. Acting on this hint, and knowing that in the minds of many of you my name is more closely associated with the practice of ovariotomy than with any other surgical question, I would first ask your attention to one phase in the history of the development of the operation which has been well termed the "revival of ovariotomy in England."

There are not many here who can carry back their reminiscences so far as mine go. Without being formally apprenticed, I had all the advantages of the old apprenticeship system under an unusually able and worthy man, the late Michael Taomas Sadler, of Barnsley in Yorkshire. For one year I lived with one of the parish surgeons of Leeds, attended the lectures of Hey and Teale, and saw much practice in the Leeds Infirmary. In 1837-38 I was in Dublin, under Graves and Stokes, Crampton, Beattie, Harrison, Apjohn, and Jacob. In 1839-40 I worked hard in St. Thomas's Hospital under Green, Travers, and Tyrrell. I obtained the prize for the fullest reports of examinations of the bodies of patients dying in the hospital during that period. But neither in the dead-house, nor in the wards or out-patient room of St. Thomas's, nor in Dublin, nor in Leeds, nor during my pupilage, can I remember ever having once seen a case of ovarian disease. I never heard a lecture upon the subject. Very little was said about it in any of the text-books, and the way in which it was introduced showed that it was not thought of sufficient importance for the attention of students to be drawn to it.

I very much doubt whether it ever formed any part of the examination at either the College or the Hall. We now know that, though Morgan, Key, and Bransby Cooper at Guy's Hospital, in 1839 and 1840, and Phillips at the Marylebone Workhouse in 1840, operated once, the matter was not in any way brought under the notice of the medical students of that time. I have no doubt that the operations at Guy's were done under the influence of Blundell, who had been professor of obstetrical medicine in that hospital. In the edition of his "Obstetrical Medicine," published in 1840, there is a chapter on ovarian dropsy very far in advance of the general knowledge of the day. To illustrate the routine treatment of the disease, he relates a characteristic saying of Abernethy, who, consulted on a case where tapping was useless on account of the viscid character of the contents of an ovarian cyst, said, "It won't do to go on boring holes in the belly." Probably Sir Astley Cooper's famous story of a case of "dry tapping" may be explained in the same way.

But I had not seen Blundell's book, and it was not till many years afterwards that I even heard of the name of McDowell, or of any of the fourteen cases of ovariotomy done in Great Britain between 1825 and 1839. It was not until I myself had written on the subject that I learnt what William and John Hunter had thought and suggested, or that John Bell had so lectured as to inspire McDowell with the determination to do what he afterwards did. In fact, I believe that most teachers and students of that day knew as little or cared as little about the subject as I did.

Very soon after becoming a member of the College of Surgeons in 1841 I entered the Royal Navy as assistant-surgeon, and for some six years served in the Naval Hospital at Malta. In addition to naval practice I saw many patients both male and female, and did many operations in consultation with resident practitioners in Malta. But I can only recollect one case, which I now believe might probably have been a case of ovarian tumour, but which at that time was a puzzle to us. My old friend Dr. Waters of Chester has lately reminded me that he and I had conversed on the subject of ovariotomy in Paris in 1848. But he spoke with knowledge acquired in Edinburgh under Hughes Bennett, I in complete ignorance. Still it is curious that we both came to the conclusion that, upon the facts as they then stood, ovariotomy was not a justifiable operation.

It was not until after settling in practice in London, which I did in 1853, that I ever saw a patient whom I knew to be suffering from ovarian disease. In 1854 I joined the Samaritan Hospital, at that time a dispensary for the diseases of women, a subject of which I knew less than of any other special division of our profession. In my young days I had done an unusual amount of midwifery, but latterly my practice had been almost exclusively surgical, with a strong tendency towards ophthalmic surgery. In 1853 or 1854 I became acquainted with Baker Brown. He occasionally came to the Samaritan Hospital, which he wished to join, and I two or three times saw patients with him at St. Mary's. In April, 1854, I and my friend Nunn of the Middlesex assisted Baker Brown in his eighth case of ovariotomy. This was the first time I had ever seen the operation attempted, and it certainly did not encourage me to look favourably upon ovariotomy. The patient died, and her death discouraged Brown. He, Nunn, and I talked the matter over, and I well remember Brown saying, "It's the peritonitis that beats us." His first three cases died, the fourth recovered, his fifth and sixth died, the seventh recovered, and the deaths of the eighth in 1854 and of the ninth in 1856 led him to cease operating for more than two years and a half, and again to advocate treatment by pressure and

iodine. He did not perform ovariotomy between March, 1856, and October, 1858.

When the Crimean War broke out I left London, served with the army in the East, and of course lost sight for a time of all the diseases of women. Any impression that I had received as to ovariotomy was certainly not favourable; but I did see cases of abdominal wounds which taught me that the peritoneum would bear much rougher handling than I had previously believed permissible. I had written about hernia, and had advocated division of the stricture without opening the sac whenever possible, simply to avoid the danger of admitting air or blood into the peritoneal cavity. But I learnt in the Crimea that a man's abdominal wall might be lacerated by fragments of shell, his intestines protruding and covered with mud, so remaining for several hours; and yet, that after careful cleansing of the cavity and accurate closure of the wounds, complete recovery was possible. When I returned to London in 1856 I was certainly much less afraid than before of abdominal wounds. I took up my work at the Samaritan Hospital again, but saw very few cases at first of ovarian disease. The first made a very painful impression upon me. Snow Beck tapped a very fine young woman, and injected iodine, he thought, into the cyst, but he really injected the peritoneal cavity. He had not taken the precaution of passing a long catheter through the short cannula of his trocar; the emptied cyst slipped off the cannula, and several ounces of tincture of iodine passed directly into the peritoneal cavity. Beck was grievously distressed, but the case did not so much deter us from the use of iodine as awaken us to the necessary precautions as to the mode of injection. But we had very few cases of ovarian disease, and it was not till December, 1857, that I made my first attempt to perform ovariotomy. A tolerably full report of the case was published at the time, and reprinted in 1865. Baker Brown was present and strongly dissuaded me from going on with the operation, on the ground that, as the tumour was behind the intestines, it could not be ovarian.

It is not easy to estimate correctly the part played by Baker Brown in the progress of gynæcology. In the minds of many his really great services have been overshadowed by the errors of his later practice. Some who fully acknowledge and admire what he did to popularise the operations for the cure of ruptured perineum and vesico-vaginal fistula, and who now recognise the great success which attended his adoption afterwards of John Clay's suggestion of dividing the pedicle of an ovarian tumour by the combined action of strong compression or crushing with the actual cautery, forget, or never knew, that when Brown assisted me in the case which I have just referred to, and in another which I am about to mention, his own early experience of ovariotomy had led him rather to oppose than encourage the repetition of the operation. At my second attempt, my first case of completed ovariotomy, Brown again assisted me, and in my first and in all subsequent reports of the operation I have fully acknowledged his zealous assistance. But it was not until after I had had three successful cases that Brown himself began to operate again, after an interval of more than two years and a half. At this third case Tyler Smith was present. He was greatly surprised at the successful result, and it induced him not only to cease the opposition he had formerly offered to Brown's practice, but to operate himself, which he did with great success.

I think it would be difficult to imagine a position more disheartening than that in which I was placed when making my first trials of ovariotomy. The first attempt, as I have said, was a complete failure, and strengthened, not only in the minds of others, but in my own mind, the fear that I might be entering upon a path which would lead rather to an unenviable notoriety than to a sound professional reputation. And if I had not seen increasing numbers of poor women hopelessly suffering, almost longing for death, anxious for relief at any risk, I should probably have acquiesced in the general conviction, have been content with palliative tapping, or making some further trials of incision and drainage, or of iodine injection, or of pressure, rather than have hazarded anything more in the way of ovariotomy. It may be forgotten now, but it is true that at that time everything was against the venture. The medical press had denounced the operation, both in principle and practice, in the strongest terms. At the Medical Societies the speakers of the highest authority had condemned it most emphatically. The example of the men who had practised it was not followed; some of them had given it up. Only once had a successful result been obtained in any of our large metropolitan hospitals, that by Cæsar Hawkins, at St. George's, in 1846, and he never undertook it a second time. Every other attempt, at Guy's by Morgan, Key, and Bransby Cooper, at St. Thomas's by Solly, had ended in death.

This was how we stood at the end of 1857. It was in February, 1858, that I completed the operation for the first time. I need say no more about it now than that it led to my being congratulated by Dr. West upon "complete success," and, with other evidence, to his thorough conversion from his previous condition of conscientious and determined opposition to a state of warm support both in public and private. Let me read to you part of a letter written by my friend Keith of Edinburgh. In the *British Medical Journal* in 1873 Keith wrote: "Few watched more eagerly than I did the history of this operation, and few know so well the details of the early cases. Till 1858 I could find nothing whatever anywhere to encourage, but everything to deter one from attempting it. Ovariotomy was then as an operation simply nowhere, and had the practice of using Dr. Clay's long intra-peritoneal ligatures been continued, it would have yet been nowhere. Up till that year Mr. Brown had lost seven out of his nine patients, and had ceased operating for upwards of two years and a half. Surely there was nothing for anyone to learn from such results, except, perhaps, what there might be to avoid." Keith was one of the first to follow me, and did more than anyone else at that time to assist in the revival of ovariotomy. I had done eight cases when he began, and ever since we have gone on side by side, very friendly rivals, assisting each other, comparing notes, not always running on the same track, but always equally anxious to perfect the operation. You all know how wonderful his success has been. Some of his later cases of the removal of uterine tumours are unsurpassed as surgical achievements. He concludes the letter, part of which I just read, by asserting, as others, both before and since, at home and abroad, have also done, and which it is my highest pride and pleasure to feel was not due only to their friendly feelings but because it is true, that the period of progress, "the revival of ovariotomy," began when the results of my earlier operations were made known, and the confidence of the profession was obtained by the publication of every case whether successful or not.

Anyone who will look over the reports of my early cases, who will see the names of the men who sent me their patients—West, Rigby, Watson, Acland, Hare, Stokes, and Oldham; of those who, as well as my colleagues, Savage, Priestley, Grailly Hewitt, assisted me, or were present at the operations, among whom I may mention Paget, Fergusson, Tyler Smith, Bowman, Seymour Hayden, Pirrie, Baker, Grimsdale, Bickersteth; who discussed with me various questions which arose as to pathology and treatment, Aitken, Richardson, Ritchie, Hutchinson, Frank, Druitt, Robert Lee, Churchill, Beatty, and Simpson; who, for their personal assurance, like Nélaton, Worms, Demarquay, De Mussy, Péan, Courty, came from France; or De Roubaix and Boddaert from Belgium; or from Germany, as Schuh, Billroth, Esmarch; from Italy, as Porta, Vanzetti; or from America, as Gross and Marion Sims—will find no difficulty in understanding that we had now reached a turning-point. Some of these timely allies have finished their course. Some remain, ripened and matured by years of experience, not yet worn out, but finding their greatest happiness in their daily work, and in friendly association with their fellows and juniors. When I can name such men as not only having witnessed and sanctioned the operation, but becoming convinced, by following up the cases, that it was at least as successful as other serious operative proceedings, and when I add that many of these men soon began to perform the operation themselves, and publicly to advocate it—no one, I say, who considers all this will be surprised at the rapid rise and progress of ovariotomy between 1858, when it was revived, and 1864, when it was very generally accepted as a legitimate operation, and was not long afterwards cited as a triumph of modern surgery.

If I were to select from the books and pamphlets, most of which I have carefully preserved, published during these six years any one work which contributed more than others to form professional opinion, to awaken interest, and to instruct those who had before not thought upon the subject, it would be the tables of cases most industriously collected by your own townsman, John Clay, and published as an appendix to his translation of Kiwisch's "Clinical Lectures on Diseases of the Ovaries." The tables are now of far

more value than the lectures. One of Clay's chief merits is the example he set of obtaining all the information possible as to every recorded case of ovariotomy, completed or attempted, from the first up to 1860. He collected such a mass of facts, and arranged them for reference or study so conveniently, that he supplied us with fuller and more trustworthy information than had ever before been gathered together upon any surgical question, and I think he may be said to have done more than helped in starting what is now called the "collective investigation of disease."

From these tables as arranged by Clay, and from a perusal of the works published about that time, we can now see how fully the principles and many of the practical details concerned in the matter had been discussed. What may be called the ethical or moral side of the question had been fully argued. The fears and forebodings as to the physical and physiological effects of the removal of an ovary—such as the abnormal accumulation of fat, the development of masculine type, and the restriction of the sex of infants—were dispelled and falsified. The causes of death in fatal cases had been investigated. Many of the mistakes of the earlier operators had been corrected; and, far above all other things, the profession had gained confidence in the accuracy and completeness of the facts laid before them. The old plan of operating in a hot moist chamber, and keeping the room over-heated for days afterwards, was soon abandoned. The semi-recumbent position of the patient was exchanged with great advantage for the horizontal. Safer anæsthetics than chloroform were used. Simple bandages for keeping the patient quiet supplied the place of an objectionable crowd of assistants. Precautions, never before thought much about, were taken for protecting the patient from any infectious disease; by obliging every visitor intending to be present to declare that he had not made a post-mortem examination, nor been into a dissecting-room, nor attended any case of infectious disease within a week; by the utmost attainable purification of the house, room, bedding, and clothing, sponges, and instruments—in fact, of everything brought near the patient—and all this was insisted on with a pertinacity which often gave offence. A great deal was gained by shortening the incision in the abdominal wall, by emptying the cyst before drawing it out, or by lessening the bulk by breaking down the septa of multilocular cysts; by extreme care in preventing the entrance of ovarian fluid into the peritoneal cavity, or by very carefully cleansing the cavity from any blood or fluid which had entered it—a process christened by Worms the "toilet of the peritoneum." Sir Benjamin Brodie long ago remarked with regard to lithotrity, that success depended upon attention to a number of minute details. So with ovariotomy. No one of the details which I have just alluded to may be alone of any great importance, but taken together they did a great deal towards preventing failure and securing success. Other modifications of more or less importance were soon made. The old vegetable material for ligatures and sutures, coarse whipcord or twine, was abandoned. After many trials of silver, iron, or platinum wire, horsehair, fish-gut, and other materials, we settled upon pure silk as the most useful and trustworthy, and proved that, after a few weeks' retention in the animal body, it entirely disappeared. The mode or process of its removal by the insinuation of white blood-corpuscles between its fibres, a sort of untwisting or solution, was watched stage by stage, and long before the treatment of the pedicle in this manner was seriously proposed, we learnt that silk ligatures, and portions of omentum secured by them, might safely be left within the abdominal cavity. Nathan Smith was the first to treat the pedicle in this way, but he made his ligatures from a leather glove. Tyler Smith was the first to revive the practice, using silk. A story has been very generally believed—probably some of you may have heard it—that Tyler Smith's first trial was accidental; that he cut off the ends of the ligatures inadvertently, forgot all about them, and was surprised to find that his patient recovered. But on inquiring of his former assistant, Dr. Edwards, who is still in practice in London, I am assured that there is no ground for this story. The operation was performed in June, 1861. Dr. Edwards writes: "Previously to this operation I had strongly advocated the advisability of dropping the pedicle and cutting short the ligature, and it was at my initiation that it was done. In fact, I did it myself."

The mode of treating the pedicle became a subject of anxious discussion. The evils which attended the use of the long ligatures were soon found to outweigh any advantage obtained by their service in drainage. The extra-peritoneal method was simplified by Hutchinson's introduction of the clamp, and for a long time it was only in cases where the clamp could not be used that any other method was sought for. I had hoped much from the écraseur, but only used it once. Others had spoken of crushing the pedicle and twisting off the cyst. I had an instrument made for tearing through it, a rough bluntish saw. But all these plans, without much trial, gave way before that combination of crushing and cauterising for which surgery will be for all time indebted to your own Clay. Used at first by him for dividing omentum, both he and I suggested that this might be a good mode of dividing the pedicle in ovariotomy. Baker Brown was the first to carry out this suggestion in practice, and with immediate improvement in the results he obtained. Keith followed him, and, with occasional intermissions, has continued the practice. I also had very good results in thirty cases, and have sometimes blamed myself for not having given it a more extensive trial. I did not give it up, however, until I thought I had proved the ligature to be more trustworthy in cases of short pedicle. What is called the complete intra-peritoneal ligature—by which we mean the transfixion of the pedicle, tying it in two or more portions, cutting off the ends of the silk close to the knots, and returning them with the tied stump after cutting off the cyst—was by no means a common practice until long after the date of which I have been speaking.

The mode of closing the opening in the abdominal wall was one of the first things to attract my attention, and no one before me seems to have cared whether the peritoneum was included in the sutures or not. A very few still maintain that it is a matter of no consequence, and Kœberlé still asserts that it is better not to include it. I have not time now to trouble you with a thrice-told tale of how, by examination of patients who died after ovariotomy, and by experiments on animals, I convinced myself that by passing the sutures through the whole thickness of the abdominal wall, including the peritoneum, at such a distance from the divided edges as to permit two surfaces of the serous membrane being brought into contact when the sutures were tied, instead of merely bringing the edges together, a more permanent and complete union was obtained, and that one source of immediate danger was avoided—I mean the oozing into the abdominal cavity of blood, or serum, or fat from the divided tissues. So, too, we got rid of the inconvenience which patients who recover sometimes suffered from the adhesion of omentum or intestine to the abdominal wall.

I need not say much about the mode of dressing the wound, but I think it is of some importance to note that from the first I was very careful to keep the wound as dry as possible. I had become convinced in my naval and military practice that water dressing and other moist applications (without going into any discussions as to the cause of pyæmia) were far inferior to dry dressing. For several years I used pads containing Skinner's mixture of calcined oyster-shells and oil of tar, covered with layers of cotton wool, and supported by the gentle pressure of a flannel bandage; and the only modification, made of late years, in these dry dressings has been the substitution of the elegant and comfortable pads devised by your townsman, Gamgee, for the antiseptic and absorbent powder of Skinner.

The chief improvement made in the after-treatment was in greatly diminishing the amount of opium. Large doses had often injured the patients, and I thought might have been the cause of death in some of the earlier cases.

(To be concluded.)

ST. GEORGE'S HOSPITAL.—The following prizes have been awarded to students in the Medical School for the session 1883-4:—For the William Brown Exhibition of £100, Mr. E. C. Arnold and Mr. Allingham were equal; the William Brown Exhibition of £40 was won by Mr. A. Codd, the Brackenbury Prize in Medicine by Mr. C. Bell, the Brackenbury Prize in Surgery by Mr. R. Pinhorn, the Treasurer's Prize by Mr. R. Pinhorn; the Serjeant Thompson Medal by Mr. Trevor, the Pollock Prize in Physiology by Mr. A. H. Vernon, Sir Charles Clarke's Prize by Mr. R. Emmett; general proficiency prizes to pupils in their first year, Mr. Ernest Lancaster; second year, Mr. W. L. Dickinson and Mr. De Nyssen, equal; proficiency prizes to pupils in their third year, Mr. K. Kirkpatrick and Mr. G. F. Smith, equal; certificate of proficiency in Medicine, Surgery, and Pathology, Mr. C. F. Glinn.

Clinical Lecture

ANKYLOSIS AFTER CHRONIC JOINT DISEASE.

BY RICHARD BARWELL, F.R.C.S.,
SENIOR SURGEON TO CHARING-CROSS HOSPITAL.

GENTLEMEN,—I told you in my last lecture that in bad cases of chronic joint disease a certain impairment of mobility will result. As a sequela of the less severe forms of synovitis, this may be due to fibrous thickening of the synovial and perisynovial tissue. The more severe forms, and osseous diseases which have been allowed to run on and affect the joint itself, end commonly in ankylosis, false or true, which is often the best or only means of cure. The first two modes of impairment—viz., synovial with perisynovial thickening and false ankylosis—are more or less inconvenient, according to two factors: to the amount of immobility and to the place in angular mensuration of the arc. Let us take as examples in marked contrast with each other the elbow and the knee, both of which we will suppose to be capable of moving through an arc of 35°. If, in the former case, this movement occurs on each side 90°, so that the angle of the joint may vary from 73° to 107°, the use of the arm for most occupations will be very little damaged; but if a like amount of movement at the knee were relegated to the same part of the arc the limb would be quite useless; whereas the value of an arm would be greatly depreciated if its movement of 35° were restricted to the best possible position for the knee—viz, from 180° to 145°. But, again, immobility, very much greater than that above supposed, may be of itself a serious detriment.

Thus the surgeon will have one of two causes for interference: either great restriction of mobility, or the unfortunate position in which movement is permitted, and not unfrequently both these conditions are combined in the same case. In both we may in great measure, or entirely, eliminate the inconvenience by a surgical procedure named forcible flexion or extension, as the case may be. These operations are known in surgery sufficiently well to exonerate me from any close description here; I will only tell you that in certain cases tendons, more especially of the flexors, may require division; that the forcible movement is not a mere application of bodily strength, but is directed and governed by certain rules of art, differing with each joint and with every position of such joint. You should, however, learn to distinguish the conditions, which enable you to promise very considerable restoration from those which would cause you to encourage only hopes of less advantage. Remember, too, that there are many cases in which, though you may be unable to greatly increase the amount of mobility, you can at least cause it to take place in a more convenient position. You will perceive readily enough how important it is that, before recommending any such operation, you should be able to tell your patient what he will in all probability gain by it, and you will also see that the question divides itself into two heads: operations proposed for the restoration of mobility, and operations intended only for the correction of position. As to the former of these points, I give you now some axioms which will enable you to judge with great accuracy what you will be justified in predicting.

Provided that no subluxation nor altered form of the bones obtains, very considerable, sometimes complete, mobility may be restored; when the inflammatory attack has not been prolonged; or if it have been sharp, rather acute, and unaccompanied by marked pyrexia; when whatever movement remains is smooth, normal in direction, and free within its limits, the impediment being sudden; when, the impediment being reached, a rather acute pain is experienced. Under the same conditions of bone, less, but still some useful, mobility may be gained, even though the original disease has been rather more chronic; when already a certain amount of mobility (20° for example) is possible, though that motion is in no part of its course free, but impeded, the resistance increasing *pari passu* with the amount of change in posture, until not a sudden but a gradual check is reached. If the patient be warned that he may be required to undergo, and will submit to, one or more repetitions of the stretching, much more may be effected than in a single operation. Less mobility is obtainable by forcible stretching, if a protracted disease have left, together with a certain but not very great change in the shape or relationship of the bones, only a small amount of much impeded movement. Yet if that movement be in an inconvenient portion of the arc, the posture may often be so changed that the limb and its movement shall be in the most convenient situation.

Forcible extension and flexion can do no good, but may prove absolutely injurious if the form of the bones be much modified or their relative position considerably altered.[1] To this I need hardly add that such treatment is not applicable to true ankylosis. But I am very far indeed from telling you that this last class of cases is beyond the aid of art, or that lameness due to inconvenient position of completely stiffened limbs should be abandoned or left without remedy.

Let us take as our first example a knee with true ankylosis at a right angle or less; consider the condition of such patients as I have often shown you, and show you now again; observe the exaggerated and very unsightly limp; remember that the deformity does not remain confined to the limb, but that the spine and trunk, being, to allow of progression, thrown into awkward postures, soon become curved and twisted; therefore that the patient more or less quickly, according to age, becomes, not merely a cripple, but a deformed cripple. Obviously therefore it is the surgeon's duty to rectify the posture of the leg—i.e., to place it in a straight line with the thigh. This may be done by osteotomy—i.e., by dividing the femur just above the condyles, placing the tibia in a good position, and applying at once a plaster-of-Paris bandage. After such operation the patient may as a rule get up in from four to six weeks, but it is prudent that for two or three weeks more a poroplastic or leather splint should be worn during walking lest the union should bend. I must tell you, too, that a knee-joint disease occurring in early life and severe enough to have produced true ankylosis will also have checked the growth of the bones; therefore you should measure the length of the femur and tibia against those of the opposite side, and warn your patient of the amount of inevitable shortening, otherwise some subsequent disappointment may result. You have seen me treat very many cases of true ankylosis after this method, and you will have observed that in no instance has the operation caused the temperature to rise above 100° F. From this you may estimate the safety of the operation, but can judge still better when I tell you that I have divided seventy-three femora without having had a single untoward result. As to estimating the ultimate effect of these operations, students at a hospital, and for that matter surgeons also, lie under the disadvantage that when wounds are healed or bones united they very often see nothing more of the patient and the effect of the procedure on his after-life is generally unknown. Those of you who have followed my practice for the last few years will remember that of the many cases I have thus treated several have come from two homes for cripples with which I am connected, and I have within the last few days seen those patients. They are all walking with a barely perceptible limp, and all without artificial aid of crutch or stick, except two, whose treatment is still too recent to allow unassisted progression. I will moreover, relate to you a case from my private practice, because I have had the opportunity of watching it for a length of time, which warrants my affirming that the improvement is permanent.

In February, 1880, I was asked to visit at a sea-side town a lady suffering, I was told, from severe spinal curvature. I found her, aged thirty-one, somewhat stout, pale, and feeble, reclining on a sofa, which she only quitted once in the day to go out in a Bath chair. She complained of a great deal of pain in the back and loins, aggravated by walking, even if only about the room. In order to examine the spine I got her to stand up, and finding that one leg was lame, elicited that when nine years old she had scarlatina, followed by synovitis and suppuration, culminating in true ankylosis of the knee in a position rather less than a right angle. I need not here detail what was done for the spine. Suffice it to say that I fully explained that all such measures could be but palliative while the false position of the

[1] At the knee more especially a subluxation of the tibia backwards almost entirely precludes such procedure.

ankylosed limb continued. It was, however, rather more than a year before the lady and her friends determined to follow my advice. In March, 1881, I divided the femur just above the condyles, and placed the tibia in a line with the femur. She remained in bed a month, and another fortnight in town; she was then supplied with crutches and with a high boot to compensate the loss of growth in the limb bones; also with a light poroplastic splint. She learned to walk, though rather slowly, for she had not really walked for more than twenty years. For the last two years and a half she has walked well without any stick or other support. She is strong and healthy, enjoying life and fond of exercise; the limb, formerly emaciated, is now plump and well formed; the spine is very nearly straight, and when I last saw her, about six weeks ago, she was in robust health, and going for a pleasure excursion up the Thames. But, as I pointed out to you just now, false ankylosis in a bad position does not permit of treatment by forcible extension when the bones are much altered in form or when their relative position is considerably changed. The modifications of form which preclude that treatment are such as affect the joint surfaces; they are, if not to be actually verified by touch, to be surmised with certainty if you find the edges of those surfaces either elevated in ridges or scooped out by old caries into hollows, while depressed cicatrices prove previous suppuration, and awkward twists or lateral deflections of the lower limb segment indicate loss of substance on one side or the other. In such cases, even if we could, which is doubtful, place the limb in a better posture as regards flexion or extension, it is impossible to predicate whether we might not at the same time increase the lateral or the rotation deformity.

Again, as regards subluxation sideways of a tibia, interference by forcible extension is extremely likely to increase that trouble, or, still worse, to rupture the altered ligaments, so that the leg becomes entirely loose on the thigh, and more useless for support than before the operation. The more common posterior dislocation requires some little care in diagnosis. We are supposing a case of false ankylosis at about a right or at a smaller angle, in many of such the femoral condyles project considerably beyond the anterior edge of the tibia, sometimes because that bone has been really displaced some distance backwards, sometimes because the leg, having been long kept in flexion, no pressure has fallen on the end of the thigh bone, and the condyles have therefore become prolonged by unresisted growth. I advise a careful diagnosis; but am bound to tell you that in both these circumstances forcible extension of the limb is inadmissible, as posterior dislocation almost certainly follows. But in these cases, whether of change in bone surface, of lateral or posterior dislocation, you may, by the help of osteotomy, procure a straight and useful limb; moreover if, as often happens, some awkward twist, either abduction or adduction, of the tibia has occurred, you may at the same time rectify that condition.

Let me call your attention to this girl. Nineteen months ago I performed that operation for her; the knee was falsely ankylosed, very much bent, abducted and rotated outwards; she was exceedingly lame. Now you see the limb is straight, the foot does not turn out, and the slight mobility permitted by the false ankylosis is of great advantage to her, as the extremity of the limb can be bent or straightened to about the extent of four inches, which improves her gait and her appearance in sitting. The slightly heightened shoe enables her to walk with only a very little limp, her spine is straight, and her health is reestablished.

NURSES FOR THE SICK POOR.—The Whitechapel Board of Guardians have recently had under consideration the question of the desirability of securing, by means of the employment of a limited number of non-salaried pupils or probationary nurses, a greater degree of elasticity in the nursing arrangements of the infirmary, under circumstances of illness, absence, &c., as well as the preparation and training of suitable persons for permanent appointments. A committee of the Board has expressed the hope that the Local Government Board will see fit to relax existing rules so as to admit of the reception of such nurses, and the provision for them of the usual allowances, without report to, or approval by, the Board, as in the case of the staff appointments.

ON THE

NERVOUS OR MUSCULAR ORIGIN OF CERTAIN SPASTIC CONDITIONS OF THE VOLUNTARY MUSCLES.

By SYDNEY RINGER, M.D.,
PROFESSOR OF MEDICINE AT UNIVERSITY COLLEGE, LONDON,
AND
HARRINGTON SAINSBURY, M.D., M.R.C.P.,
ASSISTANT PHYSICIAN TO THE ROYAL FREE HOSPITAL.

(*Continued from p. 768.*)

WE must now make the attempt to localise the disease, but before doing so we must draw attention to the fact that, whilst the voluntary muscles are affected in this widespread and symmetrical fashion, the muscles of organic life escape wholly. Nowhere do we find any record of a difficulty in swallowing, or of trouble in micturition or defecation; this is of importance, for our *peripheral* search for a cause has been completely negative; we have been left with nothing but the bare symptom—muscular rigidity. Bernhardt's analysis is very clear, and we can scarcely do better than follow it. He points out that the disease is not a local one, in no case is a leg or an arm alone affected. The muscles suffer generally and symmetrically. The distribution of the hypertrophy recalls very much the disease pseudo-hypertrophic paralysis; but leaving out of account minor differences, the complete absence of paralysis and of any trace of atrophy in any part of the body, as well as the negative results of microscopic examination, at once dispose of this possibility, as also of all those cases in which a true muscular atrophy is masked by an overgrowth of the interstitial fibrous and fatty elements (lipomatosis musculorum luxurians) such as may occur in progressive muscular atrophy. In relation to this progressive muscular atrophy, we must state that Seeligmüller in one of his cases records fibrillary contractions of the affected muscles, but he at the same time emphasises the fact that there was no question of atrophy present.

With the elimination of all atrophic states, and likewise all paralyses, we have left but few possible cord affections, and in keeping with this is the entire absence of rectal or bladder trouble. Again, although in Thomsen's disease we have evidence of the face muscles and those of the tongue and eyeball being implicated, still we have no trace of an affection of the medulla such as we meet with in glosso-labio-laryngeal palsy, yet such symptoms we should expect if a lesion of the cord had been the cause, and had extended upwards in amongst the nuclei of the medulla. Almost the only region of the cord in which it would be possible to locate a lesion giving rise to symptoms like those here present are the lateral tracts; a lateral sclerosis would cover many of the symptoms, and would associate this disease with those forms of spastic paraplegia in which a lateral column affection is probable. This is Seeligmüller's view; but even here we have against such view the almost insuperable objection that in Thomsen's disease there is no evidence of loss of power; and then, too, the rigidity characteristic of lateral sclerosis is of quite a different kind; it tends to become permanent as the disease advances, and *does not wear off with exercise of the affected part;* indeed, it is quite impossible to find any likeness between the walk in Thomsen's disease and the spastic walk of lateral sclerosis.

There remains the encephalon in which to search for the cause. But again we must record negation. Thus, though the speech is difficult, yet "there is neither stammering nor tripping up over syllables. All the other cranial nerves are unaffected. The organs of sense functionate normally; the psychosis is without anomalies."[1] Thomsen, in his original paper, suggested the name "muscular ataxy," but none have followed him along this track; and of ataxy or incoördination no other author makes mention.[2] In Thomsen's family history, whilst the affection itself was well marked in three generations, a neurotic history was traceable in four; this, in conjunction with the observation that the degree of manifestation of the trouble was much increased by psychic disturbance, such as any sudden emotion

[1] Bernhardt, *op. cit.*, p. 530. [2] Ibid., p. 530.

(we have here Dr. Thomsen's personal experience), led him to consider the disease as of the nature of a psychosis; hence he names the disease, "tonic contractions in voluntary muscles, the result of an inherited psychic disposition."[2] This view is unsupported by any of the succeeding authors, nor do we think that it is tenable in view of the whole facts of the case.[4]

The attempt to localise the disease has not been very successful. We have been driven from the peripheral structures to the cord, from the cord to the medulla, from the medulla to the encephalon, and have not found the morbid action. We have accordingly no other course open to us than to try back. May it be that, after all, the muscular fibres are themselves at fault? The microscope has detected nothing morbid; the electric reactions have revealed peculiarity, but nothing of the nature of morbid reaction as we are familiar with it; and, finally, the vigour of contractility of the fibres is unimpaired. Bernhardt, nevertheless, does hold the muscular fibres to be at fault. His suggestion is that we have present not morbid action but anomalous action, this anomalous action being the result of an arrested development. A faulty evolution inherited or congenital he holds to be at the bottom of the affection. In support of this theory he instances the observations of Soltmann[5] on the contraction curve of the muscles of newborn animals. This curve is lower, the top is flatter, the slope, in particular of the descending limb of the curve, is more gentle. The curve resembles that of fatigued muscles. He also draws attention to the occurrence in certain animals, rabbits, and certain fish of striped muscular fibres of two varieties. In the rabbit there are the red and the white muscles, and of these the white are characterised by the suddenness of their contraction; the red by the great prolongation of the contraction curve, and the fact that once tetanised the relaxation takes place only very slowly, though the tetanising influence have been withdrawn. Ballet and Marie follow Bernhardt in localising the affection in the muscles, but they go no further. Leyden, in his remarks on muscle rigidity, also considered the muscular fibres to be at fault, and threw out the suggestion of an increased consistence of the contents of the sarcolemma, "analogous to a rigor mortis,"[6] as possibly explaining the phenomenon, but he appears to be referring to muscle rigidity in general and not to this special disease, which indeed he does not appear to have recognised as something quite distinct from the rigidity accompanying cord diseases. Seeligmüller made an almost identical suggestion in his first consideration of the disease, but subsequently renounced this view in favour of an affection of the lateral tracts. In a note having reference to Bernhardt's view of the nature of the disease, he thinks that a congenital or inherited faulty evolution of the lateral tracts will equally meet the facts of the case. We have mentioned the objections to this view; we may add another—viz., that exaltation of the reflexes (patellar, &c.) has not been described as characteristic of Thomsen's disease, yet these have been investigated. This negative evidence is of importance, since much stress is laid on the condition of the reflexes in lateral sclerosis.[7] We think then that, on the whole,[8] the evidence is against a neuropathic, and for a myopathic, theory; but admitting this, Bernhardt's suggested arrested evolution yet remains to be considered. This we shall do, however, after we have brought forward the experimental results which we think bear on the question. We may at once proceed to these.

During the course of some experiments with the phosphate, phosphite, and hypophosphite of sodium upon the frog,[9] some very curious effects on the muscles were noticed. These consisted in fibrillary twitchings of the voluntary muscles, quite like those induced by veratria, and very similar to those observed in progressive muscular atrophy. These movements varied much in intensity, in some cases showing only as a flickering of the smaller bundles of fibres, in others being so extensive as to move even a whole limb. The movements in these latter cases were quite choreic in type, but the gradation between such and the finer fibrillary movements was so insensible that the conclusion was inevitable that the cause of the one was the same as that of the other, and hence that if the fibrillary effect was a peripheral one, the larger choreic movements were likewise peripheral. Whilst apparently quite involuntary in their nature, it was observed that voluntary movements would bring out or greatly increase these fibrillary contractions.

At this stage and later the movements of the animal were observed to be very slow and stiff, the relaxation following a contraction being very much delayed, quite recalling the action of veratria and some other muscle poisons. This muscular stiffness reached its maximum when a complete saturation of the system with the salt had obtained. At this stage a voluntary movement would cause the hind-limbs to become rigidly extended, and in like manner the toes extended and spread; simultaneously the fore-limbs would be flexed across the chest. The effect so far was very like that of strychnine, but there were decided differences—e.g., the strychnine rigidity is followed by a lapsing of the limbs into a state of relaxation, from which a fresh stimulus again starts them into rigidity. This sequence may be many times repeated; quite different is the sodium phosphate rigidity, for this after persisting some time only very slowly gives way, but having given way the relaxation is maintained. Another difference observed consisted in the involuntary nature of the strychnine spasm, this indeed being nothing else than a very widespread and violent reflex, whereas the sodium phosphate rigidity was observed to be closely related to volitional movement—in fact to supervene upon it,—though one could not regard it as actually of voluntary nature.

(To be concluded.)

[2] Arch. f. Psychiatrie, p. 717.

[4] The cases, with the exception of Thomsen's, being singularly free from distinct evidence of a neurotic temperament.

[5] Jahrbuch f. Kinderheilkunde, 1877. [6] Op. cit.

[7] Bernhardt, op. cit., p. 534.

[8] We have omitted to mention that Petsone thinks that we have present a block *somewhere* between the cortex and the terminal plaque of Rouget. See Ballet and Marie's paper.

[9] Sydney Ringer: Report on the Influence of Rhombic Phosphate of Sodium and Sodium Bicarbonate on Muscular Contraction, in Brit. Med. Journal, July 19th, 1884.

CHOLERA.

By MAX VON PETTENKOFER, M.D.,
OF MUNICH.

(*Continued from p. 771.*)

WE shall now inquire into the time relations of cholera at its permanent home in Lower Bengal. Dr. John Macpherson has, in his work on "Cholera in its Home," tabulated the number of cases of death from cholera in Calcutta for each month of the year for a period of twenty-six years. I have calculated and arranged in a tabular form from these statistics the average number of deaths in each month, and contrasted each month with the average rainfall at Calcutta. (See Table I.) It will be seen how unequally distributed is the great fall of rain, which is two or three times greater than in many districts of Germany. Calcutta has a rainy season, which begins at the end of May and ends at the beginning of October. The cholera decreases from the beginning and increases again towards the end of the rainy season. It reaches its maximum during the driest and hot months (March and April), and its minimum is attained during the wettest and hot month of August, so that the curve of cholera falls whilst that of rain rises. The rise and fall of endemic cholera is constant, whilst the prevalence of cholera in its epidemic form is very variable. In the Punjaub the rain winds (monsoons) bring with them the cholera. This apparent contradiction of the experience above mentioned may be explained by considering that the monsoons bring to the Punjaub the necessary moisture which is believed to be requisite for the development of an epidemic of cholera. Rain falls in the Punjaub at the same time as in Lower Bengal, but in smaller quantity. The average rainfall at Lahore is 22 in., as compared with 62 in. at Calcutta; so that in Lahore for the greatest part of the year the soil is too dry for cholera. That these claims are substantial will be granted by a study of the rainfall and related circumstances in other parts of India. This is well seen at Madras, as indicated by Table II. At Madras the average rainfall is about 48 in., and is therefore midway between those of Lahore (22 in.) and Calcutta (62 in.), but the quantity of rain in the several months is different. The greatest quantity of rain falls in November, and Madras is not under the influence of the south-west, but of the north-east, monsoon, and the rainy season extends from July to December. As Madras lies further south than Calcutta, and the quantity of rain is 25 per cent. less, it is

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plain that the desiccation during the dry and hot season would be much greater there than in Calcutta. And this state of affairs is reflected in the vegetation. April, May, and June are like winter months; the leaves begin to fall; the verdure fades away, and the sap descends to the roots of the trees, not because of the cold, but on account of the excessive dryness. It is at this period that cholera is at its minimum. In July, when the rain begins to fall, cholera increases, and reaches its maximum in August. The rain continues, but the cholera decreases owing to the excessive dampness of the soil; so that in November a second minimum in the number of cases of cholera is met with.

In order to inquire into the accuracy of these views, another observation, taken from India, may be cited. Places which are outside the region of endemic cholera, and which have a rainy season at the same time and of about the same amount as Calcutta, have the same amount and periodicity of cholera. Such an instance is afforded in Bombay, which is a city as large as Calcutta, and the rainy season of which depends on the south-west monsoons. In a table which shows the frequency of cholera, the rainfall, and the temperature on the average for a period of fifteen years, it is evident that in all three particulars there is a remarkable correspondence between Calcutta and Bombay. (See Table III.)

The temperature has been given for the reason that it brings out the fact that temperature has not much influence on the progress of cholera. That Bombay is not within the endemic area of cholera is sufficiently testified by the results of the statistics for fifteen years. During this period there were three years in which no epidemic occurred. That a whole year should pass without the occurrence of a single case of cholera in Bombay is not to be expected, when the active intercourse between it and the endemic areas is borne in mind. If the table of averages relating to Bombay be compared with that of Calcutta, the resemblance is seen to be striking. The maximum incidence of cholera is seen to occur in both in April, and the minimum is found in Calcutta in August and in Bombay in September. After this minimum the increase takes place equally in both cities. The years during which no epidemic occurred in Bombay were characterised either by too much wet or too great dryness. Thus in the years 1852-53 the diminished frequency of cholera followed on a period of great wetness, and that of 1860-61 came on after a very dry season. That this dependence on the weather is really sound is shown by a study of the years immediately following the lessened intensity of cholera. The years 1853-54 and 1861-62 in Bombay showed the same rhythm for cholera as Calcutta; whereas, on the contrary, the year 1858-59 in Bombay had the same abnormal rhythm as Lahore. The average number of deaths from cholera in Bombay in March was 253, in April 295, and in May 294. In June, when the monsoons begin, the number further diminishes. The number of deaths in March, 1859, was 9, in April 7, in May 69, and when in June the monsoons set in and 26·8 inches of rain fell, the number rose to 843, whilst the mean for June was only 278. After dry weather Bombay also shows, like Lahore, "monsoon cholera."

Cholera in India, as is well known, has likewise a remarkable relation in time to the years of drought in India. If rain once fail, or be very small in amount, a famine necessarily follows. Distress is then felt both in Lower Bengal and in the Punjaub, but the cholera only appears more severely in Lower Bengal and avoids altogether the Punjaub. The dependence of epidemics of cholera on the time of the year (i.e., on the moisture of the soil) comes out well in countries outside India, as, for example, in Germany. In the kingdom of Prussia from 1848 to 1860 cholera was prevalent every year, though its incidence varied in intensity and in different provinces. During this period, cholera was as much at home in Prussia as in India. Brauser has calculated the cases of death from cholera week by week for the thirteen years 1848 to 1860. The numbers for the different months are as follows:—April, 112; May, 446; June, 4392; July, 8480; August, 33,640; September, 56,561; October, 35,271, November, 17,530; December, 7254; January, 2317; February, 842; March, 214. The numbers are founded on statistics, and it is proper to investigate the possibility of errors therein. No objection can be made to the Prussian statistics, for the numbers are too great to be vitiated by casual error. In India the statistics may not be so trustworthy, because registration is sometimes defective. Some cases of death from cholera may not appear as such, and perhaps some deaths may be falsely registered as due to cholera. The Indian statistics have, therefore, only been given for large cities, where more attention is paid to correct registration. The errors which may occur extend over all the months of the year, and are scattered, so there is less liability to perversion of the truth. And there is no need to prove absolute numbers, for relative statistics are sufficient. Farther, in the garrisons and prisons of India, where physicians abound, the statistics are nearly as good as in Germany, since cholera is a disease so easily recognised. That a large series of numbers is able to eliminate to the vanishing point the unavoidable errors of statistics is shown by an instructive example of the statistics of typhoid fever in Munich. Buhl, in studying the relations between the

TABLE I.

Average Frequency of Cholera, and Average Rainfall (in Inches) in Calcutta.

—	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Cholera	275	359	566	745	513	243	153	132	151	239	320	317	4013
Rain	0·21	0·42	1·13	2·40	4·29	10·1	13·9	14·4	10·4	4·2	0·9	0·13	62·58

TABLE II.

Average Frequency of Cholera and Average Rainfall (in Inches) in Madras.

—	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Cholera	194	191	123	64	65	59	164	191	186	143	93	104	1577
Rain	0·89	0·22	0·48	0·68	2·26	1·65	3·46	4·38	4·58	10·9	12·90	5·42	47·82

TABLE III.

Average Frequency of Cholera, Average Rainfall, and Average Temperature (in Degrees Centigrade) at Bombay.

—	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Cholera	235	213	263	295	294	278	162	93	60	76	95	163	2217
Rain	0·03	0·01	0·01	0·02	0·41	20·02	22·69	13·10	9·47	2·01	0·27	0·09	68·12
Temperature...	24·1°	24·7°	26·2°	29·1°	30·4°	29·1°	25·2°	25·2°	27·1°	27·2°	26·2°	24·7°	—

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occurrence of typhoid fever and the state of the subsoil water, made use only of figures obtained from the general hospital during the years 1856 to 1864, where every diagnosis was confirmed or overthrown by post-mortem examination. [Pettenkofer here devotes considerable space to the discussion of the question, dealing chiefly with the possible inconsistencies in the certificated causes of death. He seems to prove that the difference between the numbers gained by actual observation and those obtained by calculation is so small that it may be disregarded.] It is considered that since the rate of death from typhoid fever in the general hospital is on the above showing a fair representative of the death-rate in the town of Munich, so the numbers concerning cholera obtained from the barracks and prisons of India may be taken as a good sample of the rate of mortality from cholera in the cities themselves. Bryden has given support, in his work on the time and space distribution of cholera in India, to the reports of barracks and prisons. That cholera should attain its greatest frequency in North Germany during the months of August, September, and October, and that winter should seldom see an epidemic, may be explained by the temperature which prevails in the air and earth. In the class of octogenous infectious diseases, to which cholera belongs, the temperature, as in all organic processes, has a decided, though it cannot be the chief, influence. That cholera is not very dependent on temperature is evidenced by the possibility of the occurrence of an epidemic of cholera during the winter. Why cholera spreads more during the summer and early autumn, as compared with winter and spring, must depend on other causes than temperature.

It is clear, in my opinion, that the soil and the moisture of the soil play a principal part. The dampness of the soil is, under certain conditions, clearly related to the subsoil water, "Grundwasser." Epidemics of cholera abound during the time that the "Grundwasser" is falling, when the earth is comparatively dry. By "Grundwasser" is to be understood that condition of dampness of a porous soil when all the pores are filled with water. If water and air together fill up the interstices, then the soil is called simply damp. I have so long and so often spoken on the influence of the rise and fall of the ground water on the frequency of typhoid fever and cholera, that I imagine a great many scientists credit me with the view that subsoil water is highly harmful. But such is not the case. The subsoil water is merely an indication of what is going on, and has no more to do with the actual processes than a dial and the hands have in the going of a clock. The fall of the ground water by pumping away, or the rise of ground water by the damming of a stream, has not the least effect on typhoid fever or cholera in the neighbourhood. The observation of the level of the surface of the water in springs as an indication of the state of the subsoil water is of no value from an etiological point of view, unless the spring be independent of the nearest watercourse, and unless at the time of the observation the real state of the spring is a true reflex of the condition of the subsoil water in its neighbourhood. When the information, however, is obtained properly from springs free from objection, then the condition of the ground water gives the state of moisture and of exchange in the overlying layers much more accurately than an observation made on the atmospheric downfall (rain and dew). Rain may fall for a week without causing any rise in the subsoil water, and again a rise may occur when there has been no fall of rain for some time. The perusal of Profe-sor Franz Hofmann's work, published in the Archives of Hygiene, on the movement of subsoil water, may be safely recommended. When an epidemic of cholera occurs in winter, then a relatively low state of the ground water is found to prevail. In Munich three epidemics prevailed during the cold months: the first occurred between October and March, 1836–37; the second from July to November, 1853–54; and the third from July till April, 1873–74. All three epidemics were associated with a relatively dry state of the earth, as was proved also by meteorological data concerning the rainfall. No investigation had been made as to the state of the ground water during the period 1836 to 1854, but this investigation was first begun in 1856, so that for 1873 and 1874 the data were available; and it is only on the assumption that the condition of the soil as regards moisture was abnormal for the time of year that the long duration and strange division of the last epidemic could be accounted for. The subsoil water sank from the end of June, 1873, till the beginning of August. On that occasion the germs of cholera probably came from Vienna, where the epidemic had prevailed since April. Two cases coming from Vienna, one in June, the other in July, could be vouched for. At the end of July the first illness from cholera occurred in Munich, but in individuals who had never come in direct contact with the infective cases. In every fresh outbreak, in 1836, in 1854, and in 1873, the same part (the north-east) of the town was the first to suffer. As the epidemics of 1854 and of 1873 developed at the same time of the year (the end of July), so by the middle of August the height of the epidemic was reached; it then fell off rapidly during September; during the whole of October only isolated cases occurred; and by the middle of November the epidemic had ceased in the higher lying parts of the town. It was thought that the disease had become extinct, and notwithstanding that it was considered strange that the summer epidemic had chiefly fallen upon the higher lying parts of the town, whilst the lower lying districts on this occasion had been altogether spared. In the middle of November, when the weather became colder, the epidemic reappeared, and attacked chiefly those lower lying districts which had escaped in the summer. It is impossible to trace the progress of contagion in time and space from one individual to another. The contagionists cannot maintain that the unexpected falling off of cholera was due to the protection afforded by the previous prevalence of the disease, seeing that the lower lying districts had escaped the epidemic, and that the other inhabitants two months later suddenly lost their protection. Anyone who studies the movements of the ground water in Munich for the year in question will find that in the first half of August an event occurred which in suddenness and unexpectedness rivalled the retrogression of the epidemic in the second half of August. In the first half of this month there fell an abnormally large quantity of rain (171 mm.), which excessive rainfall was the largest amount ever registered since the observations had been begun. The consequent wetness of the soil was reflected in a great abnormal rise in the ground water. But from August onwards through the winter, and till the beginning of the year, the amount of rain and dew which fell was again far below the average, and the ground water steadily decreased. In the middle of April, 1874, it again began to rise, and then the epidemic of cholera ceased. The abnormal fall of rain in August, 1873, in Munich had the same effect on the cholera there as the south-west monsoons regularly have on the disease in Calcutta. In the relative dryness which follows this excessive wetness the epidemic process is continued as a winter invasion.

Munich and Augsburg are very much alike in situation and in meteorological factors. Both places lie in a direct line not sixty kilometres apart. But that differences in the amount of rainfall may occur is proved by the year of cholera 1873. In Munich, in spite of the excessive fall, the amount for the whole year was hardly up to the average; in Augsburg the excess above the average was 30 per cent. In 1873 the rainfall at Augsburg approached to that of the average at Salzburg. The distribution of the rainfall was different in Augsburg as contrasted with Munich, and the same difference in the history of the cholera holds good of the two towns. Augsburg had an epidemic of cholera in 1854, but none in 1836 or 1873, when only a few isolated cases occurred. That Augsburg in place and time and in individual disposition is susceptible of an epidemic of cholera was seen in the year 1854, when about 3 per cent. of the whole population was destroyed by the malady, whilst Munich lost that year but 2½ per cent. If the appearance of cholera in the two places mentioned differed only in the time required for the transit from one city to another, then the germs of cholera must pass either from Munich to Augsburg or *vice versâ*. In the year 1836 Augsburg remained free from cholera, which infested Munich for six months. At that period no observations on the rainfall were made, but no doubt exists that cases of cholera passed, without isolation or disinfection, from Munich to Augsburg. These facts prove that cholera is a miasmatic disease, and may be wholly independent of human intercourse. For the year 1854 meteorological data are obtainable, and this year had as dry a season in Augsburg as in Munich, whilst at both places cholera prevailed. In the year 1873 the case was different. Then there were in Augsburg regulations for the prevention of the spread of cholera, without which precautions, be it noted, in 1836, Augsburg remained free from the disease. Nevertheless, cholera did not visit Augsburg in 1873, during which period stringent measures of prevention were also in full force at

Munich. Such considerations lead to the logical conclusion that what saved Augsburg did not relieve Munich. Further, Munich remained free from visitation in the humid summer of 1866, when cholera prevailed in North Germany; so that no importation of cholera to Munich took place from the seat of war.

(To be continued.)

OBSERVATIONS ON THE

AFTER-TREATMENT OF LITHOTOMY WHERE THE BLADDER IS SACCULATED OR POUCHED.

BY REGINALD HARRISON, F.R.C.S.,
SURGEON TO THE LIVERPOOL ROYAL INFIRMARY.

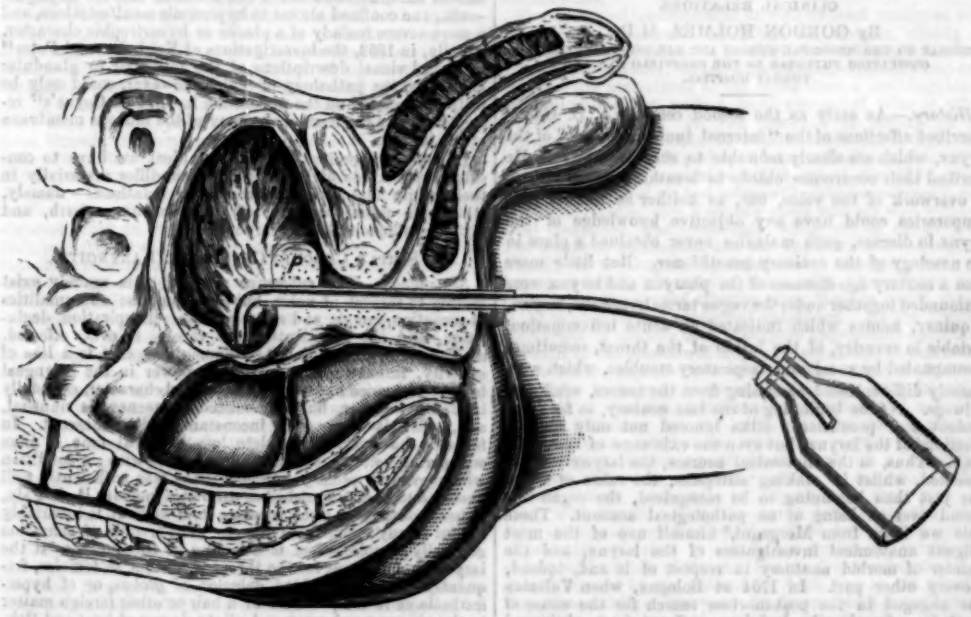
SACCULATION or pouching of the bladder is not only a frequent cause of stone in adults, but is probably the most serious complication attending its removal. An ill-shapen bladder often renders lithotrity out of the question, whilst it increases both the dangers of lithotomy and the liability to a recurrence of stone. A careful study of the results of lithotomy in adults not only shows them to be unsatisfactory when compared with the immediate risks of the operation, but also seems to point to certain defects in the after-treatment to which it is desirable to direct attention. To remove a calculus out of a pouch or depression in the bladder, and not at the same time to provide against urine lodging in the cavity thus formed for its reception and decomposition, is to incur a risk of cystitis and septicæmia which is by no means an imaginary one. It must be remembered that a saccule has no power of expelling its contents; its walls contain no muscular fibre, and it is entirely dependent on its relation to the general cavity of the bladder for the emptying of whatever it may contain. The small mortality following lithotomy in children and the extraction of stone in women is largely due to the fact that the conditions in both are favourable to the thorough drainage of the bladder.

I have recently been adopting a system of drainage after lithotomy and other cases where the bladder has been opened which has so far proved a great benefit. In the first place, in all instances of stone complicated with a large prostate and with saccules on a depressed floor I have been particularly careful by a sufficient division of the prostate to make a free access to the bladder; this has sometimes necessitated the section of the gland to a greater extent than was requisite for the removal of the calculus.

To provide free drainage after the operation for all depressed portions of the bladder, the following plan has been adopted (it is practically that of the double tube in tracheotomy):—Through an ordinary lithotomy tube open at the end is passed and retained a rubber catheter, or drainage-tube; this adapts itself to the inequalities in the walls of the bladder, and can be made to enter any saccule that may be present. In a recent case, though the ordinary lithotomy tube seemed to be draining efficiently, I had from the general symptoms reason to believe that some urine was retained. On introducing the rubber catheter in the manner described, several ounces of fetid urine escaped, after which the progress of the case was good. By the double tube a constant system of drainage is carried on, so that urine escapes immediately on entering the bladder. The accompanying diagram explains, first, the position the ordinary lithotomy tube should occupy relatively to the divided large prostate (marked *p*); and, secondly, the arrangement by the double tube for securing perfect drainage of a sacculated bladder.

I would remark that to rapidly heal up a bladder which in its mechanical construction has all the elements necessary for the production of calculus is not in my judgment a wise proceeding, so long as anything can be gained by not doing so.

In cases of calculus associated with residual urine and a large prostate, I have had some excellent results in instances



where it was deemed desirable to retain the lithotomy tube for considerable periods of time—partly for the purpose of draining and partly with the view of bringing about a permanently improved condition in the outlet from the bladder—namely, cases where the tube has been retained for six, eight, or even ten weeks.

The advantages of the double tube after lithotomy performed under the circumstances mentioned may be summarised as follows:—

1. The prevention of vesical colic and spasm by retention of clots and the plugging of the ordinary tube with blood.

2. The more perfect drainage of the floor of the bladder, however irregular this surface may be.

3. A ready mode of washing out all parts of the bladder without removal of the outer tube. For the latter purpose, one of Tiemann's double current rubber catheters, fitted on to a Higginson's syringe and passed through the ordinary lithotomy tube answers admirably.

4. Increased facilities for keeping the patient dry, by

having the inner tube sufficiently long to conduct the urine into a vessel by the patient's bedside; the bed may be kept absolutely dry until the time comes for the removal of the tube altogether. This is a point of great importance, especially in elderly persons, who are liable to bedsores and suffer much from the immediate presence of ammoniacal urine.

The tenesmus and pain at the end of the penis which are sometimes caused, where the prostate is large, by the retention of thick ropy mucus on the floor of the bladder are considerably mitigated by this plan, combined with the free use of some solvent for this secretion. The best solvent for vesical mucus I have yet found is a solution of common salt in warm water, with which the bladder should be washed out, by the double tube as described, as often as necessary. In all cases of this kind the tubes should be retained and drainage employed until the urine shows that it can pass through the bladder without undergoing decomposition in it; so long as there is any sign of the latter, there is a risk of the re-formation of stone. A considerable number of the softer stones are entirely of vesical origin. The prevention of these necessarily brings under consideration the remedying of the causes upon which they depend. These latter are not always difficult to discover.

Liverpool.

CHRONIC CATARRHAL LARYNGITIS:

ITS VARIETIES, WITH THEIR ETIOLOGY, PATHOLOGY, AND CLINICAL RELATIONS.

By GORDON HOLMES, M.D.,

PHYSICIAN TO THE MUNICIPAL THROAT AND EAR INFIRMARY, LONDON; CONSULTING PHYSICIAN TO THE SHEFFIELD EAR AND THROAT HOSPITAL.

History.—As early as the second century A. D. Galen[1] described affections of the "internal tunic or pellicle" of the larynx, which are clearly referable to chronic catarrh. He ascribed their occurrence chiefly to breathing damp air and to overwork of the voice, but, as neither he nor his contemporaries could have any objective knowledge of the larynx in disease, such maladies never obtained a place in the nosology of the ordinary practitioner. But little more than a century ago diseases of the pharynx and larynx were confounded together under the vague terms kynanche, angina, or quinsy, names which indicated an acute inflammation, variable in severity, of the inside of the throat, sometimes accompanied by vocal and respiratory troubles, which were scarcely differentiated as arising from the fauces, windpipe, or lungs. At the beginning of the last century, in fact, the student and practitioner alike ignored not only chronic affections of the larynx, but even the existence of the organ itself. Thus, in the anatomical courses, the larynx was not dissected, whilst in making autopsies, the value of which was just then beginning to be recognised, the organ was passed over as being of no pathological account. These facts we learn from Morgagni,[2] himself one of the most diligent anatomical investigators of the larynx, and the founder of morbid anatomy in respect of it and, indeed, of every other part. In 1704 at Bologna, when Valsalva was engaged in the post-mortem search for the cause of death in a female who had long suffered from phthisical symptoms, nothing morbid being found in the lungs, head, &c., Morgagni, then a student, requested to be allowed to examine the larynx.[3] Destructive ulceration being there discovered sufficient to account for the symptoms, great interest was aroused by the disclosure, and Morgagni by making a point of examining the larynx in his numerous autopsies was able to record a large number of cases which established the importance of the organ as a site for pathological observation. In 1760 Morgagni's great work was published, containing his scattered cases; but not until 1790 was a special treatise devoted to chronic diseases of the larynx. In that year Petit[4] of Montpellier produced a monograph on "laryngeal phthisis," a title which included all chronic laryngeal affections, from the severe forms of catarrh to tuberculosis, syphilis, and cancer, no clear diagnostic line being drawn between these various maladies. During the succeeding thirty years several essays, similar to that of Petit were published, with little obvious advance; but the first writer who attempted a separate investigation of maladies of the laryngeal mucous membrane was W. H. Porter[5] of Dublin, in 1824. A few years later Albers of Bonn[6] produced the first comprehensive treatise on diseases of the larynx, and gave a description, remarkably complete for that date, of chronic inflammation of the mucous membrane of the organ. Again, in 1837, Trousseau and Belloc,[7] in their celebrated essay on "Laryngeal Phthisis," pictured the same affection under the name of "simple laryngeal phthisis." In 1846 Horace Green[8] of New York gave the first clinical exposition of the effects of the catarrhal process in the mucous glands and follicles of the air-passages—an affection vaguely known previously as "clergyman's sore-throat"—the first suggestion of the pathology of which was given more than a century previously by Van Swieten[9] of Leyden. In 1853 Rheiner[10] investigated the same disease by morbid anatomy; and again, in 1857, Guéneau de Mussy[11] presented an exhaustive work based almost entirely on clinical observations and inferences. So far, however, the semeiology of chronic catarrhal laryngitis was mainly presumptive, and no wholly trustworthy objective knowledge of the disease existed. Thus, on the introduction of the laryngoscope, observation had a new development to take, and the void was soon filled in after 1858. In this field the researches of Czermak,[12] Türck,[13] Semeleder,[14] and Tobold[15] shortly caused the differentiation of two kinds of chronic laryngitis—viz., one confined almost to hyperæmic manifestations, and a more severe malady of a plastic or hypertrophic character. Finally, in 1868, the investigations of Krishaber and Peter[16] furnished visual descriptions of the follicular or glandular laryngitis, the pathology of which, however, could only be fully appreciated on the production in 1874 of Coyne's[17] researches as to the normal anatomy of the mucous membrane of the larynx.

In dealing, therefore, with this subject we have to consider three kinds of laryngitis, which differ materially in their origin and general pathological relations—namely, (1) simple chronic catarrh, (2) hypertrophic catarrh, and (3) glandular or follicular laryngitis.

I. SIMPLE CHRONIC CATARRHAL LARYNGITIS.

Semeiology.—The *subjective* signs of this malady exist mainly in respect of voice, but also comprise abnormalities of sensation, cough, and expectoration. Respiration, deglutition, and the constitution are rarely, if ever, affected. *a.* The vocal alteration most commonly present is a loss of sonority, intensity, or penetrating power in the laryngeal tones. The voice has a veiled or muffled character, especially in damp weather, but pronounced hoarseness is unusual, and, when it does occur, inconstant and evanescent. In females, however, a complete loss of vocal tone, a mere whispering voice, is not uncommonly met with; a condition which even in prelaryngoscopic times was sufficiently well observed to be distinguished as *catarrhal aphonia*.[18] *b.* Pain, either spontaneous or on pressure from without, is invariably absent to any appreciable degree. The trouble of sensation generally complained of is a feeling of thickness, as if the larynx is too large for the throat, and this, in females, frequently causes a decided delusion of *globus*, or of hyperæsthesia as to the presence of a hair or other foreign matter in the pharynx or larynx. A slight degree of heat and tickling is a usual symptom. *c.* Involuntary cough is a very variable phenomenon, but in a majority of cases it is altogether absent. Should it be present to any marked degree, we must

[1] De Compositione Medicamentorum Secundum Locos, l. vii., c. 1.
[2] De Sedibus et Causis Morborum per Anatomen Indagatis, Lugduni, 1760, Epist. xv., 13.
[3] Ibid.
[4] Dissertatio de Phthisi Laryngea, Montpellier, 1790. Collection of theses.
[5] Observations on the Surgical Pathology of the Larynx and Trachea, Dublin, 1824.
[6] Die Pathologie und Therapie der Kehlkopfkrankheiten, Leipzig, 1829.
[7] Traité de la Phthisie Laryngée, &c., Paris, 1837.
[8] A Treatise on Disease of the Air-passages, New York, 1846.
[9] Commentaria in Boerhaavii Aphorismos, &c., Lugduni Bat., 1745, sect. 188.
[10] Virchow's Archiv, 1853, Bd. v., Die Ulcerationsprocesse un Kehlkopf.
[11] Traité de l'Angine Glanduleuse, Paris, 1857.
[12] Del Kehlkopfspeigel, &c., Leipzig, 1860.
[13] Various papers; the collective results in Klinik der Kehlkopfkrankheiten, 1866, Wien.
[14] Physiologische und Pathologische Betrachtungen über Heiserkeit, Wiener Med. Wochenschr., 1862.
[15] Die Chronische Kehlkopfkrankheiten, &c., Berlin, 1866.
[16] Dictionnaire des Sciences Médicales, 1868, art. Larynx.
[17] Thèse de Paris, 1874.
[18] See Copland, Dictionary of Practical Medicine, art. Larynx.

suspect that the trachea and bronchi are to some extent involved. When the malady is strictly confined to the larynx there is voluntary cough—that is, hacking efforts to clear the throat, which sometimes, if persisted in, induce temporary hyperæmia and irritation of the larynx, &c., with a troublesome fit of involuntary coughing. This occurrence is most likely to take place in the morning. *d.* Expectoration is very scanty, and usually consists of a little viscid mucus, small pellets of which are often brought up in the morning, formed apparently by inspissation of the ordinary secretions during sleep. A more considerable amount of mucus may, however, be discharged after long-continued hacking efforts.

The *objective* phenomena, conformably to the mild nature of the disease, indicate no impressive alterations of the larynx. General congestion of the mucous membrane is seldom well marked, but hyperæmia of the aryepiglottic and ventricular folds on one side is frequently seen, and, perhaps more commonly still, of the posterior or under surface of the epiglottis. Less frequent, but by no means rare, is a slight congestion of the vocal bands, when a red hue appears to gleam faintly through the whiteness of their upper surface. Comparatively seldom one or two pink spots resembling slightly elevated granulations may be observed in the same situation. There is also usually a certain dusky or smoked appearance of the whole larynx, the colour of which in any case is more or less patchy or mottled, in contradistinction to the delicate and uniform hue of health. A very striking and common deviation from the normal state of the mucous membrane is the altered quantity, and no doubt quality, of its secretion. Thin flakes and bands of mucus are very often adherent, in a scattered manner, to the surface of the vestibule, having in most cases a blackened appearance, suggesting that they have for some time retained their position exposed to the soiling action of the inspired air. Frequently also the vocal bands are coated with a thick film of viscid, glairy mucus, which, when they are drawn apart after contact, stretches across the glottis in two or three threads till they snap by the force of respiration or their own contractility. Much more rarely than any of the above symptoms do we find patches of shallow ulceration or erosions. These, when they occur, are most conspicuous on the free edges of the vocal bands, as in this position the slightest break in the even outline is well shown up by the dark background of the space beneath. I believe, however, that these erosions are really much more common, not merely more distinguishable, in this situation.

Pathogenesis.—This malady is often of a secondary nature, and forms a sequela to acute catarrh of the larynx. It has, however, by no means invariably such an etiological relationship as some authors have concluded.[19] It may arise insensibly from a variety of slight, but persistent, causes, such as leaving off customary wrappings about the throat, shaving the chin, &c., after long disuse of the habit, inspiration of an atmosphere impregnated with dust or chemical fumes,[20] especially if the mouth be kept constantly open, frequent over-exertion of the voice, by which a series of temporary, though slight, congestions of the organ are occasioned. Its etiology often seems to be intimately connected with the inclement seasons, with frequent exposure to wet and cold, and in many cases the disease, whilst remaining in abeyance during the summer, undergoes a subacute exacerbation every winter. The fundamental cause, however, in a great majority of cases is, in my belief, a more or less debilitated state of health, which is impelled by some more immediate cause to find its local expression in this manner. When secondary it is probably always due in reality to the supplementary action of one or more of the above causes, which resist absolute recovery from the acute attack, and determine the persistency of the chronic affection. This form of chronic catarrhal laryngitis is generally stated to be most frequent in the male sex; but the fact has not been proved by statistics. I have good reason to doubt its truth, as I find it contradicted in my own experience. Thus, out of 70 cases, of which I have a record, 47 were females. As regards age, the malady is essentially one of adult life; 61 of my cases occurred after nineteen and before thirty-eight.

Pathological Anatomy.—There are naturally no special post-mortem researches on which to found a description of the actual structural alterations existing in so mild a disease, but we may safely assume that the morbid process moves in conformity with what has been observed in other mucous membranes. Thus we have increased action of the racemose and other glands, proliferation and shedding of epithelium, their investment being, under the long-continued influence, of imperfect development and comparatively low vitality, whence arises the dull or dusky tint of the surface. The action can, however, never be sufficiently intense to expose the basement membrane, and thus give rise to the excoriations mentioned. For this reason, therefore, these latter must be regarded as a proof of the secondary origin of the malady from acute catarrhal laryngitis, or of the more or less frequent supervention of subacute exacerbations.

Diagnosis.—There is little to be said under this heading, as, under all ordinary circumstances, the malady may be called self-diagnostic. When an apparently similar affection is associated with syphilis or phthisis, the concomitant symptoms will direct attention to the fact, but often time alone can determine whether the disease is a simple one or the introduction to destructive ulceration in the larynx.

Prognosis.—In uncomplicated cases this is entirely favourable as regards progress towards any serious lesion, but with respect to absolute cure we can seldom anticipate that the malady will terminate without some weeks, or even months, of more or less assiduous treatment. The longer the disease has been established, the more probability, of course, that its cure will be protracted. In the most obstinate cases, however, time unaided—that is, a period of months or perhaps years—will almost invariably bring about a gradual amelioration.

Treatment.—Constitutional as well as local measures will generally be required. (*a*) When we observe clearly or suspect a state of cachexia, in which the tendency is towards anæmia and debility, we must give tonics, especially iron and cod-liver oil, prescribing at the same time a well-regulated and nutritious diet, with a small amount of wine or other alcoholic stimulant. In the presence of corpulence or plethora, quinine should be administered and a light unstimulating diet, with perhaps a course of saline and laxative mineral waters at a suitable health resort, should be counselled. Change of air and scene will often be necessary, and always advisable. (*b*) Very few cases will get well without local treatment, and those only which are of recent date. The means to be adopted are the application of astringents directly to the larynx by inhalation, lozenges, and the laryngeal brush. In most of these cases I have found cold spray inhalations more effective than those in which steam is the vehicle for the medicinal substance. As the mucous membrane is usually in a markedly hygroscopic condition, it swells in the presence of moist and warm vapour, and hence the patients complain more of the foreign sense of thickening, &c. Instances, however, will be met with in which there is a decided deficiency of secretion and a feeling of dry irritation in the part. Under these circumstances steam inhalations will give most relief, especially, for a beginning at least, those of a somewhat sedative character, such as vapour of benzoin. After a little time pine oil or thyme oil, &c., may be used with benefit. For the spray inhalation the ordinary astringents can be chosen, such as two to four grains of chloride of zinc, or six to ten grains of perchloride of iron to the ounce of water. For the first week or two they should be used by the patient for from five to ten minutes three times daily; afterwards by degrees to a lesser extent. Lozenges of tannic acid, rhatany, catechu, &c., may be taken, one, four or five times daily. With respect to the applications with the brush, solutions of the same salts as contained in the spray inhalation, but of much greater strength, may be employed. Perchloride of iron (60 to 120 grains to the ounce of water) has generally proved most satisfactory in my hands. It should be applied daily for the first week or ten days, and often, indeed, twice daily, with decided advantage. But if the cure is at all protracted, the application will have to be varied from time to time according as toleration of the special action of any one drug is established.

(*To be continued.*)

[19] Krishaber and Peter, loc. cit., p. 593.

[20] See Ziemssen, Cyclopædia of Medicine, vol. iv., on this subject, with reference to the observations of Babbé, Ramazzini, Holland, &c., on inhalation of foreign matters.

AT a meeting held recently relative to the state of the Thames at Erith, resolutions were passed deploring the delay in the issuing of the Report of the Royal Commissioners on Metropolitan Sewage Discharge, and calling for thorough and speedy remedial measures forthwith.

A REMARKABLE CASE OF A JUVENILE EARTH-EATER.

BY CLEMENT DUKES, M.D., B.S., M.R.C.P. LOND.,
PHYSICIAN TO RUGBY SCHOOL, AND TO THE HOSPITAL OF ST. CROSS, RUGBY.

THE following case seems to me to be of sufficient interest for publication.

P. B——, aged five years, residing quite in the country, was brought to the Rugby Hospital on December 18th, 1883, by her mother, who carried with her in a bottle a characteristic specimen of the common round worm, ascaris lumbricoides. The mother gave the following history: Two years ago the child did not seem well, and after a day or two she became sick, and threw up a large round worm. The mother then gave her a dose of castor oil, and she passed by the bowel three more. A week after this the mother noticed that the child ate the soil in the garden, or that by the side of the road. To stop this vicious habit the child was kept indoors and scolded and whipped, but without effect; for whenever the mother was engaged in her household duties the child would immediately run out and eat the dirt. She always said, when reprimanded, that she ate the earth to relieve the gnawing pain in her stomach. So urgent was the demand for this soil-eating that the child would, if she could not get earth, eat sand, would pick the mortar out of the walls between the bricks, and she would even store a supply in her pocket to eat at her leisure, when she could not get out to obtain it. She has continued to eat the soil, in spite of continual punishments, until the time of her entrance into the hospital on February 12th, 1884, when she ceased, as far as could be ascertained, to eat the soil. The mother states that she would put the earth in her mouth, suck it, and then swallow it. She further states that during the two years of earth-eating she has brought up or passed by the bowel about a hundred large round worms. From the number I have seen myself, and from the respectability of the mother, I fully believe this statement. While in hospital she passed many, but under santonin they failed to come away; and after being without any for a month, and having become fat and strong, I discharged her on April 10th, 1884, as I thought cured. But on May 2nd her mother brought her back, she having passed another worm, but she had not again taken to eating earth. During the child's stay in hospital her perverted taste had apparently been cured. I readmitted her, when she soon passed a worm, and vomited another; but under two-grain doses of santonin three times a day, which she took for several weeks without physiological effects, she gradually ceased passing any more, and regained her health, strength, and good looks.

Cobbold says, round worms are rare in British practice, and usually only one occurs: this is my experience. But he also records that Mr. de Morgan had a patient at the Middlesex Hospital from whom thirty-seven were expelled. After the little patient's return to the hospital, I examined the well water microscopically, but failed to find any eggs of the round worm. On Oct. 4th I again saw the child by accident. She was looking well, and had not been troubled with more worms, nor had she again taken to earth-eating.

Rugby.

IRRITATION OF THE SKIN FOLLOWING THE APPLICATION OF VASELINE AS A SURGICAL DRESSING.

BY A. W. MAYO ROBSON, F.R.C.S.,
SURGEON TO THE LEEDS GENERAL INFIRMARY.

ON several occasions within the last two years I have, both in private and in hospital practice, noticed that severe inflammation of the skin has been set up by the application of vaseline as an ointment, which has subsided on applying some other simple dressing. The following examples will serve as illustrations:—

CASE 1.—Mrs. S—— attended as an out-patient at the Leeds Infirmary for simple ulcer of the leg, for which a Martin's bandage was ordered to be worn during the day, and vaseline to be applied at night. On her next visit she complained of severe burning in the leg, which was covered with eczema for two inches round the ulcer. The patient was advised to rest and to stop applying the bandage, but to continue the vaseline. On her next visit the inflammation had extended over the whole leg. I now thought it might be due to the vaseline, and ordered zinc ointment, which rapidly cured the irritation and enabled the bandage to be worn again, which soon cured the ulcer.

CASE 2.—W. C., aged eight, was brought to my rooms suffering from ophthalmia tarsi, for which I ordered yellow oxide of mercury with vaseline. On the next visit the eyelids were swollen and œdematous, so that the eyeballs could not be seen. I ordered the lids to be washed and simple olive oil to be applied. Two days afterwards, the swelling having subsided, I again ordered yellow oxide of mercury and lard as an ointment, and soon cured the case.

CASE 3.—A. Q——, aged four, was brought to my rooms suffering from a wound of the forehead, which was strapped but did not heal by first intention. After a week vaseline was applied; within twelve hours the forehead was covered with small blisters and the skin became brawny. On discontinuing the ointment and applying some other simple dressing the irritation soon subsided.

CASE 4.—A. B—— was admitted under my care into the infirmary suffering from scalds of the legs. Vaseline was applied and produced severe irritation, which subsided on its discontinuance.

CASE 5.—C. B——, aged seventeen, was admitted into the infirmary suffering from a smashed leg, for which I performed primary amputation. Near the termination of the case, the granulations being feeble, red lotion was used and vaseline was applied on lint over the lotion to prevent evaporation. It did very well for some time and was healing rapidly until one morning on my ward visit I found the sore inflamed and the adjoining skin œdematous. I could find nothing to account for this, as the same dressing was being used that had been employed for at least a fortnight, until the nurse told me she was using some fresh vaseline, which had a greenish colour but was said to be very pure. On discontinuing this the inflammation subsided and the sore again began to heal.

I need not enumerate any more cases, but I have no doubt other surgeons will have had the same experience. In the above examples I suppose the irritation may have been due to some impurity in the vaseline, as, if pure, it should be a perfectly bland preparation. But it may be that some skins present the same idiosyncrasy to preparations of vaseline as others do to any application of tar, and this seems to me more likely, since whilst the same vaseline was used in many other cases without producing irritation, in these exceptional cases severe dermatitis was set up.

Leeds.

TUMOURS OF THE TRACHEA.

BY HENRY CRUTCHLEY, M.D., L.R.C.P. LOND.
WITH NOTES BY DR. MORELL MACKENZIE.

J. B——, aged forty-nine, married, farm labourer, has had a family of twelve children, ten of whom are now living. His mother died of consumption, and she suffered from scrofulous glands. The patient is a steady, sober man, has enjoyed good health, and has never had syphilis. His present ailment came on gradually about two years ago, when he first perceived a "wheezing and whistling" in his throat upon exertion. His general health continued good, and he followed his employment without inconvenience, except when hurried, till twelve months ago, when he felt that there was "an obstruction in his throat," which kept gradually getting worse, until he had to give up his work, a month before last Christmas. He has not had much cough and very little expectoration, but felt roughness and tickling in his throat. He had no pain or difficulty of swallowing. When I first saw him, though somewhat thin, his complexion looked healthy, and there was no lividity. He had an occasional rough, short cough; no hoarseness. His voice was rather high pitched, and had somewhat of a falsetto character. The larynx did not rise or fall during respiration; there was inspiratory and expiratory stridor, the former scarcely more

marked than the latter. On laryngoscopic examination the glottis was widely open, the cartilages of the arytenoids and of Santorini showing scarcely any adduction during expiration. The vocal cords came into view only on phonation. The lumen of the trachea was seen to be occupied by a large reddish tumour, and appearing to grow from the side of the tube was a smaller one with a long pedicle, the smaller tumour rising and falling in the respiratory wave with a distinct flapping motion. The diagnosis was stenosis of trachea, caused by a benign outgrowth, probably multiple papilloma. The patient was sent to Dr. Morell Mackenzie for the purpose of having it removed. A large tracheotomy low down was performed with this object on March 3rd. The tumour was then seen to be a vascular growth, the upper limits reaching to within a short distance of the larynx; the whole tumour, about two inches in length, not being visible, as it extended further towards the bronchi. The patient made a capital recovery, talks with ease, and has worked all the summer in the harvest.

Notes by Dr. MACKENZIE.—On opening the trachea the growth was seen to be attached to the whole of the inner surface of the cricoid cartilage, and to extend down the right and posterior walls of the trachea for about an inch and a half, gradually becoming less raised above the surface until it passed imperceptibly into the mucous membrane. A microscopic examination showed the growth to consist of highly vascular connective tissue. It was found impossible to remove it.

Stoke-on-Trent.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

SCALP WOUND, FOLLOWED BY BRAIN SYMPTOMS; TREPHINING ON THE THIRTEENTH DAY; TEMPORARY RELIEF; DEATH ON THE TWENTY-FOURTH DAY AFTER THE ACCIDENT; SUPPURATION OF CEREBRAL MENINGES; BRONCHO-PNEUMONIA.

(Under the care of Mr. BRYANT.)

WE are indebted for the following notes to Mr. Hilbers.

Thomas S——, aged four, was admitted into Lydia ward on Oct. 9th, 1882. Five days before admission the child fell into a hole about three feet deep. He got out himself, and beyond a scalp wound seemed none the worse for the fall, for he ate and played about as usual. On the following day he became drowsy and was sick. His mother took him to the hospital, but refused to allow him to remain. The scalp wound was dressed. As the child continued in the drowsy state, and was sick, his father took him to the hospital on the 9th, and left him.

On admission there was a scalp wound over the right eye. The wound gaped a good deal, and the bone was exposed. Temperature 103°. The child looked very ill, and was very drowsy. A dose of castor oil was given, and the child was put upon limited milk diet.

On the 10th the child was still very drowsy. The wound and parts about were a good deal puffed up. The wound was dressed with terebene and oil. Morning temperature 101·4°; evening, 102°.

Next day there was a slight discharge from the wound, which was still puffy. Temperature 101·7°; pulse 102.

On the 12th there was still some discharge. The patient complained when a spot just below and to the outer side of the eye was pressed. Temperature 101·8°.

On the 13th the wound looked better and there was less discharge from it. Apparently an abscess was forming on the outer side of the outer angle of the right eye. Temperature 99° F. The diet consisted of bread and butter and milk. Poultices were applied to the abscess.

On the 16th the abscess seemed to be diminishing in size. The poultices were discontinued. The wound in the scalp discharged very little, and there was no bare bone to be seen. Maximum temperature 103°.

On the 17th (thirteenth day), early in the morning, the patient was seized with convulsions, and the fit lasted an hour. At 8.30 A.M. he had a spasmodic contraction of the left side (the wound was on the right side). The mouth and eyes were twitching towards the left side, and there were continuous spasms of the left arm and leg. The left pupil was slightly contracted. Temperature 102·4°. Heart beating tumultuously, radial pulse uncountable. The patient was given a warm bath and ice was applied to the head. The convulsions lasted on and off until 2.30 P.M., when the operation was done. At that time the left side was completely paralysed. At 2.45 P.M. an incision was made transversely through the wound, when a slight depression was discovered. The bone was bloodless. The patient was then trephined with the second smallest trephine, and the bone removed with forceps. There was no proof discernible of the inner table having been splintered, but upon one of the pieces of bone was some suggestion of it. The bone around was bloodless. The wound was dressed with terebene and bandaged. A Leiter's coil was applied to the head. At 4.45 (two hours later) the child was sensible and appeared better. At 8 P.M. he could move his left arm and leg, but not so freely as his right. The axis of the eye was now only directed upwards at intervals.

Next day the child was conscious. The wound was dressed. No pulsation of the brain was apparent, and the brain slightly protruded into the opening in the bone. He was delirious during the night, but in the morning was conscious, and the pupils were equal. Temperature 102°.

During the night of the 20th the child got out of bed and walked to the fireplace. Maximum temperature 103°.

On the 21st he was better. Temperature 99·9°; pulse regular. In the afternoon the temperature rose to 104·2° F. Ordered to be sponged with ice water.

On the 22nd the bowels were found to have been freely opened during the night. He wandered in his sleep. Face pasty and white. The wound looked well, and the trephined place was covered with granulations. Morning temperature 102·6°; evening, 103·6°.

On the morning of the 23rd he was quite sensible. Skin dry and hot; lips parched and dry; hands hot; tongue tremulous and covered with a little white fur; the papillæ were swollen and red; there was some twitching of the left eye and mouth. Wound looked healthy. Bowels not opened since yesterday. Temperature 104° F.

On the 24th, at 2 A.M., he had a fit which lasted five minutes. He had not been sick, and he did not perspire. He seemed very drowsy, and cried out at times as if in pain. Temperature 103·6°. Bowels had not acted.

On the 25th he was very pale; did not care for his food. The legs were drawn up, the abdomen not retracted. Morning temperature 103°; evening, 102·2°.

On the 26th the bowels acted during the night. The patient was in a semi-comatose condition; he cried out when his head was touched. Optic axis divergent; pupils, and particularly the right, reacted badly to light. Skin dry and hot; breathing fair and rather rapid. Morning temperature 103·6°; evening, 102·2°.

On the 27th he had two fits during the morning, each lasting only a few minutes. Beads of perspiration formed on the forehead after the fits. The right arm and leg were spasmodically contracted; abdomen full, but not retracted; tongue thickly coated. Evening temperature 104·4°.

On the 28th the eyes were turned upwards; pupils fairly dilated; quite insensible. The patient unconscious; colour rather dusky. There was twitching of the arm and leg. Maximum temperature, 104·2°. At 2.45 P.M. he had another fit, lasting about twenty minutes. Temperature 103·1°. Pulse uncountable, weak, and quick. Difficulty in breathing; nostrils widely dilated. Eyes and face white and waxen. Later, the left leg began to twitch. Great perspiration on the body, but not of the face. At the end of the fit the face became slightly flushed, but this quickly passed away. The eyes were turned upwards. Pulse quick and feeble, respiration jerky. Had two more fits during the evening.

On the 29th he had two fits, lasting a long time. At 3.30 A.M. the temperature was 105°. He never seemed to recover from the first fit, and died at 5.30 P.M. Breathing rapid and laboured. Moist sounds in throat. Right pupil larger than left. Skin moist, pale, and slightly dusky.

Necropsy.—On the right frontal eminence, or rather above it, there was an oval wound with bare bone at the bottom, and in its centre a small trephine aperture. The bone around this aperture was yellow and evidently infiltrated with pus. On

the inner table there was a zone of vascularisation, and a little lymph some slight way off the trephine wound, the edges of the latter being rather spiculated but not depressed. The outer surface of the dura mater had a layer of vascular granulations upon it corresponding to the trephine wound, and on examination the under surface of the membrane on the right side was seen to be exceedingly vascular and covered more or less all over by a layer of granulation tissue. The hinder part was distinctly more vascular than the front part, which might be explained by the gravitation of septic material from the front of the arachnoid cavity; The greater part of the pia mater on both hemispheres was coated with a continuous layer of greenish-yellow lymph. There was but little difference between the two sides in this respect, and at the base also there was a considerable quantity and over the upper surface of the cerebellum. The interior of the brain was quite healthy and there was no evidence of any injury to the brain from the fall. It seemed probable that the injury to the bone was the primary trouble, that this led to suppuration by extension through the membranes, and to the fatal result. There was a good deal of broncho-pneumonia on the left side. The other viscera were healthy.

LIVERPOOL INFIRMARY FOR CHILDREN.

ACUTE MANIA IN A CHILD OF FIVE YEARS; RECOVERY; REMARKS.

(Under the care of Mr. E. HYLA GREVES.)

FOR the notes of the following interesting case we are indebted to Mr. Harding H. Tomkins, M.R.C.S.

Agnes K——, aged five years, was admitted on June 26th, 1884. She had had no acute disease of fever, but had always been somewhat delicate and nervous. About two months before she began to lose her appetite, complaining of pain in her stomach, and suffering from constipation; she lost flesh, and became languid and inclined to sit about instead of playing. Timidity increased, and on one occasion she was terrified for some hours by an earwig having run over her. On June 24th, having gone to bed, the light of a candle from a house opposite shone across her bed, and she became wildly excited and could not be pacified; she remained so until admission. The child's mother is a healthy woman aged thirty-eight, but of somewhat nervous temperament. The father died at the age of fifty, was a ship's engineer, had been a hard drinker all his life, the wife never remembering him sober a single day when on shore during twelve years of married life; he had delirium tremens more than once, and "fever" when abroad; he finally died a few weeks ago from consumption. The family consisted of seven children (no miscarriages); three of these died young of measles and other acute diseases; a fourth, the patient's companion sister, died a few weeks ago from obstruction of the bowels; the eldest, a girl of eleven years, is living, as also are two others, all three being highly nervous, and one rickety. The patient was born at full time after a precipitate but natural labour. No history of insanity, consumption, epilepsy, &c., on either side of the family. The mother was not nervous till after marriage. Grandparents healthy, but maternal grandparents both died young. No consanguineous marriage of parents or grandparents.

On admission the child was very sparely nourished. Height 3 ft. 4 in.; weight 33 lb.; skin dry and harsh, even scaly on abdomen in patches, with a purpuric rash on both legs, especially near the ankles; temperature about normal; cheeks flushed; tongue slightly furred, dry; lips dry and cracking; slight sordes present. Expression indicated intense mental action, wild one moment, terrified the next; eyes wild looking, brows knit, hands clenched; movements incessant, leaping out of bed every moment, clutching wildly at those restraining her, looking quickly in all directions, as if seeing or expecting to see some terrible object, constantly crying in a piteous tone, "Were you there?" "Was mother there?" "Who was it?" Lying down one minute, then springing up wildly with dilated pupils and knit brows, shrieking; again, in a mournful tone addressing me as "father," and saying, "Were you there then?"

June 27th.—Having been put in a separate room on admission, she continued very wild, exhibiting almost incessant motion, only controlled at all by the nurse taking her in her arms; and even then frequently starting up, talking wildly, and struggling. Ten grains of bromide of potassium and five of chloral hydrate were administered at 4 P.M., 6 P.M., and 8 P.M. on the 26th without effect, the patient only sleeping twenty minutes. At 9.30 P.M. she went to sleep, waking up in an hour as wild as ever; slept again from 11 P.M. till 2 A.M. this morning. During her ramblings, which were characterised by the disconnectedness and multiplicity of topics so usual in mania, she talked of the "School Board," of a "rag and bone man," and "a bucket of water," and said she was "locked into a room," and some one had pulled the blind down and she could not get out; she looked into the corner of the room in evident terror at some unseen person, and said in a mysterious tone, "Is she white?" "Is she painted white?" and then, the relief nurse coming on duty, she shrieked in a paroxysm of terror, stamping her feet and clutching at the nurse beside her while she sprang up in bed. "Oh! cover me up; cover my face; she is coming." The distressed and contracted expression did not leave her even in sleep. Her attention, however, was arrested on several occasions by the nurse, who was able to make her repeat verses (which the child appeared to know) after her. The bromide and chloral were given at midnight (26th), at 9 A.M., 12 noon, 3 P.M., and 6 P.M. (27th). She slept one hour in the morning and another in the afternoon. She took her food well, consisting of mincemeat, soup, Brand's beef essence, maltine and milk, besides bread-and-butter, &c. About 8 P.M. she talked rationally for half an hour or so, and then became maniacal again. Temperature 101° F. at 5 P.M.; 102·6° at midnight, accompanied by diaphoresis. Pulse rapid and small. She passed no urine from 2.30 P.M. on the 26th until noon on the 27th, when her bowels were opened slightly.

28th.—Slept nine hours between 9 P.M. on the 27th and 8 A.M. on the 28th, waking frequently, and still manifesting the same mental condition; she also slept two hours and a half in the middle of the day, not having had any medicine since 6 P.M. on the 27th. During the day she became quieter for a short time, and allowed the nurse to leave the room; up to this time the slightest movement from her bedside on the part of the nurse had caused a paroxysm of terror; she, however, became maniacal again and exhibited delusions of sight and hearing, sitting up suddenly in bed and staring wildly at imaginary objects and straining to listen to some imaginary voice. Temperature 100° at 4 A.M.; 98° at 9 P.M. Bowels open in early morning and at 4 P.M. Urine could not be saved. Vomited after her breakfast.

29th.—The patient slept about four hours and a half, from 6.30 P.M. on the 28th to 4 A.M. on the 29th, waking frequently and exhibiting various delusions, imagining she saw and felt rats running over her legs and people coming to her, and that a picture of Garibaldi on the wall was a policeman. She continually begged not to be left alone, not to be locked up or thrown out of window, and thought her medicine was poison to kill her; she thought her mother was dead, and begged not to have her legs cut off. At 5 A.M., as she had been so wild all night, she had a solution of one-thirtieth of a grain of hyoscyamine by mouth. She soon became flushed and sweated a little, her pupils becoming dilated. She slept for one hour, her temperature being 101° on waking, and though awake for two hours afterwards she remained quiet. She had two hours and three-quarters sleep during the day. She seemed somewhat depressed, her expression and delusions more allied to melancholy; the contraction of facial muscles, though continuous, was altered in character, giving a sad expression. She still addressed the surgeon as "father," though saying her father was dead and she had never seen him, she having seen him often during two or three months before his death. She got up in the afternoon, but became so wild and unmanageable that she was put to bed and had one-thirtieth of a grain of hyoscyamine at 9.30 P.M. The temperature then rose to 100°; she became flushed, pupils dilated, pulse increased in rapidity, and she became quiet very shortly, dozing for a while and going to sleep at 10.30 P.M. Before going to sleep she fancied she saw the medical officer fighting with her mother, whom he killed. Her conversation throughout the day consisted in entreaties that she might not be killed or beaten, &c., and she even stopped when being coaxed to eat, in the middle of her dinner, to say, "You won't beat me, then; but will you beat me? you won't be angry then?" Bowels moved twice; urine, sp. gr. 1020, acid, clear, no albumen or other abnormality.

30th.—Slept five hours and three-quarters after hyoscyamine, and though waking at intervals she was quieter, and slept once for two hours and a half without waking. She

got up at 10 A.M., and remained up till 7 P.M.; her attention more easily attracted by various amusements, her behaviour calmer and altogether improved, though she manifested an utter want of memory except for such things as nursery rhymes, some of which she repeated with help. Her mother visited her. On first seeing her the child said "Mother!" in a mechanical way, but when the mother sat down and spoke to her she turned away and said, "Where is mother?—is she dead?" and when her mother was pointed out to her she only said, in a vacant way, "Is she there?" and in the next moment went on rambling regardless of all her mother said to attract her. Temperature, morning, 98°; 10.30 P.M., 100°. Bowels open three times. She had one-thirtieth of a grain of hyoscyamine at 8 P.M. Appetite still good; tongue clean.

July 3rd.—Slept six hours and a half between 8.45 P.M. on June 30th and 9.45 A.M. on July 1st, sleeping only about fifty minutes at a time except from 2 A.M. till 4 A.M. She showed an utter want of memory for names, but was able to roll bandages when shown how to do so, and she amused herself quietly walking after the nurse about the ward, and going out into the garden under the care of other children, yet showing fear of punishment &c. as hitherto. On July 1st she slept five hours and forty minutes, having had one-thirtieth of a grain of hyoscyamine at 10.30 P.M, which produced the desired effect in half an hour, but she only slept for about forty minutes at a time until 7.15 A.M. on the 2nd, when she fell asleep for two hours and a quarter. She then woke, and was very wild, but after sleeping for an hour at midday she became quiet and lost her usual distressed expression. In the evening of the 2nd she went to sleep for the first time without medicine, and slept from 7.15 to 9.30 P.M., but as she did not seem inclined to sleep again one-thirtieth of a grain of hyoscyamine was repeated at 10 P.M. This had no effect till 12 P.M. beyond the usual dilatation of the pupils; after this she slept for an hour, and then woke up full of delusions and hallucinations—e.g., she thought she saw her dead father and sister, and other horrible sights, which made her scream with terror whenever she woke. She also thought her leg was cut off and she was bleeding to death, and that her arm was crushed and broken. One-thirtieth of a grain of hyoscyamine was again given at 2 A.M. on the 3rd, after which she slept from 2.15 to 5.30 A.M., waking frequently for a moment, and quietly going to sleep again. During the day she slept for an hour, and amused herself all day watching the other patients, and following the nurse in the general ward.

6th.—She had hyoscyamine as usual at 6 P.M. on July 3rd, but at 2 A.M. on the 4th it was repeated, as she had only slept three hours and a half; she then slept for another three hours and a half. On the 4th she did not sleep for two hours and a half after her medicine, and during the night was very wild. Instead of the second dose she had bromide of potassium and chloral at 10 P.M. as before, and slept from 11 P.M. till 2 A.M. on the 5th, after which time it became necessary to move her from the general ward to a separate room. During the day of the 5th she was at times sullen and morose, at others vicious towards the children and angry when they tried to amuse her. On 5th, at 5.30 P.M., she had hyoscyamine again, and slept from 6 P.M. till 3 A.M. on the 6th, when she became restless and had a second dose, as she had been so bad the night before. This dose had no effect. Bowels regular. Appetite good.

7th.—Having remained quiet, though deluded, throughout the 6th, she was put to bed and slept from 7.45 P.M. till 5 A.M. on the 7th, not having taken any medicine, and on waking exhibited for the first time some signs of returning memory, as she remembered a child's name and one or two other things. She was, however, passionate and wilful all day, a great contrast to her previous purposeless rambling.

9th.—Slept from 8.45 P.M. on July 7th to 5 A.M. on the 8th without hyoscyamine, but on waking was very wild and wilful, tearing her ribbons off, pulling her hair down and manifesting other destructive tendencies, and picking her head till it bled. Towards evening (8th) when quiet she asked if she was "absent," for a doctor had said she was; she helped to get the supper and asked what the patients were to have. She then asked to go to bed, soon falling asleep; she slept for three hours, waking at 10 P.M., remained awake for an hour, and then slept for three hours more. At 4 A.M. she became so noisy and violent, screaming, &c., that the medical officer was obliged to go to her. The moment he entered the room she lay down in bed pouting, looking ashamed of herself, but immediately he left her she began again. One-thirtieth of a grain of hyoscyamine was given again by mouth, which made her sleep from 4.30 A.M. to 6 A.M. (9th). Throughout the day she bit and scratched those tending her and her expression was quite malignant, but her memory and understanding improved decidedly. She went to bed not having any medicine.

10th.—Having slept all night (nine hours) she became very excited, pulled the nurse's hair, and worked herself into a paroxysm of fury, sitting up in bed with clenched fists and half-closed jaws, the saliva bubbling and frothing between her teeth as she shrieked with passion. She had several of these attacks during the day, and bit one nurse till she drew blood. By 5 P.M. she was so bad that no one could quiet her, and she was found worrying a nurse's leather waistband like an angry dog. One-twentieth of a grain of hyoscyamin by mouth was repeated. This had little effect till 7.15 P.M., when she was soothed to sleep, after having bitten her mother, who had come to arrange about removing her to the union. On waking at 9.30 P.M. she was worse than ever, hissing through her teeth in an angry tone, and with semi-tragic style, "I'll bite you! I'll kill you!" at the same time tearing at her hair and at those who approached her. She was put in a room where she could be watched, and at 10 P.M. one-fortieth of a grain of hyoscyamine was given hypodermically. In eight minutes she ceased to scream, although previously she had done so with every expiration; in ten minutes she gaped and looked about her in a sleepy way with dilated and immovable pupils, then sank down on the bed and fell asleep.

11th.—She slept till 8 A.M., only waking up partly on two occasions. On waking she was much improved, though sullen and occasionally vicious. She was taken to Walton Union, having had one slight outbreak at home in the afternoon. Weight when discharged 35 lb., being an increase of 3 lb. All her bodily functions were well performed during her residence at the infirmary.

On the 16th Mr. Tomkins visited her. She was absolutely silent and appeared not to recollect him at all, she clung to the last person she was with and appeared frightened to trust herself to anyone else. Her appetite remained good, she slept well and had had no further outbreak, though her facial expression was anything but natural. She was reported on one occasion to have thought men were hitting her on the head in the night.

On August 16th she was again visited, and found to be greatly improved mentally and physically. Her skin was fairly filled out and bronzed with exposure to the sun, her flesh being firm and healthy. She ran and raced in the airing court, highly pleased with herself, and danced when told to do so, but she had no recollection of anything previous to her residence in the union, nor could she remember the name of the nurse she was constantly speaking of and calling to when at the infirmary. She could, however, repeat several things she had learnt. Her head, which hitherto it had been impossible to measure, was 18½ in. in circumference, 13⅞ in. from the nasal process of the frontal bone to the occipital protuberance, and 12⅞ in. from the tip of one mastoid process to the opposite one. She had gained another 3 lb. in weight. She appeared free from delusion.

On September 17th Mr. Tomkins visited her and found she had been in the school-ward for some time, was reported as a "sharp child," and was progressing well with her lessons, being able to read simple sentences and spell cat, dog, &c. She recognised Mr. Tomkins at once, called him by his name, saying she had seen him "in the same house where nurse Nelly was" (the nurse whose name she had not hitherto remembered). To all appearance she seemed to have entirely recovered and the resident medical officer had discharged her.

Remarks.—The foregoing case is interesting on account of the extreme youth of the patient, the slight hereditary tendency, the violence of the attack, and the speedy recovery following treatment, which was commenced within about thirty-six hours from the onset of the actual attack. The temperature was also considerably higher than that usually registered in acute mania, and the almost abrupt termination of the violent symptoms following (for a child) a large dose of hyoscyamine, suggests the possibility of that drug having cut short the attack, as it is reported to have done in several cases in the adult. Amongst the predisposing causes in this case it is interesting to consider not only the fact of the father's inveterate drunkenness, but the effect that this had

upon the mother, and upon the early life of the patient; for it will be noticed that the mother herself had become highly nervous before the birth of the child, and during her conception and pregnancy had been subject to mental worry and frights caused by his behaviour, all of which might strengthen the neurotic tendency of the child. Then the child, naturally of a nervous temperament, throughout its early life was frequently subject to cruel treatment and mental trouble, and it is generally recognised that the recovery of all cases of acute mania is directly proportionate to the length of time which elapses before treatment is adopted, and this seems partly to explain the fact that although the patient combined several of the symptoms which usually determine a bad prognosis—e.g., her extreme youth,[1] the hallucinations of hearing, &c.,—yet the recovery took place in less than two months. The height of the temperature may, perhaps, be explained by the fact that the temperature in young children varies considerably without apparent adequate cause. It is also interesting to note that she took eighty grains of bromide of potassium and forty grains of chloral in twenty-six hours before much effect was produced, and it required half that quantity to effect three hours' sleep; also the fierceness of the excitement was in no way lessened by the medicine, whereas after the hyoscyamine, although the amount of sleep was not perceptibly greater at first, the whole tone of the delusions and general appearance of the patient altered in character, while the discontinuance of the drug for three days was marked by a corresponding increase in the intensity of the symptoms. The immediate effect of the hypodermic injection when the symptoms were at their height is also interesting, more especially as the ten hours' sleep thus produced was not followed by any relapse into excitement throughout the period of convalescence, although on two occasions she had slept for nine hours in succession without medicine, the symptoms only gaining in strength and intensity on waking. The effect of the hyoscyamine appeared to be less marked after the first few doses, and it will be noticed that the delusions and hallucinations existed on admission, and before any kind of medicine had been administered. The last dose administered was equivalent to about half a grain in the adult, for she had one-twentieth by the mouth and one-fortieth hypodermically, being in all equivalent to one-tenth, that is, equivalent to four-tenths in the adult, as the proportionate dose for her would be one-fourth the dose for an adult. Now half a grain given in the adult has several times appeared to have cut short the attack, and so it seems to have done in this instance.

[1] Vide Bucknill and Tuke's Psychological Medicine.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Coarctation of Aorta. — Caseous Pneumonia simulating Empyema. — Tubular Epithelioma. — Cardiac Aneurysm.—Lympho-sarcoma of Liver.—Intestinal Ulceration in Paraplegia.

AN ordinary meeting of this Society was held on Tuesday last, Mr. J. Whitaker Hulke, F.R.S., President, in the chair.

Dr. HALE WHITE showed an example of the remarkable condition described as Obliteration of the Thoracic Aorta. The specimen was taken from a male subject aged forty-six, which during life had been diagnosed by the patient's doctor as a case of heart disease. The physical signs were a systolic bruit and some œdema of the lower extremities. At the post-mortem examination the aorta was found to be so constricted at the point where the ductus arteriosus joins it, that it would only just admit an ordinary probe. The ductus arteriosus had completely disappeared. The aorta between the left subclavian artery and the constriction was so small that the subclavian artery appeared to be the direct continuation of it. The thoracic and abdominal aorta were very small. The collateral circulation was thus carried on:—The superior intercostals were very large and convoluted, and anastomosed with the first aortic intercostals, which were also very large; the posterior scapular arteries, both of which came from the third part of the subclavian artery, divided on the back of the upper border of the scapula into two branches, which reuniting formed a circle on the back of that bone; from these posterior scapular arteries branches of great size were given off, which anastomosed with the second, third, and fourth intercostal arteries close to the spinal column; the right subscapular artery was extremely large and tortuous and divided into two branches, both of which joined the intercostal artery in the ninth space; the left subscapular artery joined the arteries of the ninth, tenth, and eleventh intercostal spaces; the internal mammary arteries anastomosed with the aortic intercostals—the phrenic arteries, and by their superior epigastric branches, which were very large and tortuous, with the deep epigastric arteries; the right superior epigastric gave a large branch, which descended in the suspensory ligament of the liver and anastomosed with the hepatic artery in the substance of the liver; small branches of the inferior thyroid artery anastomosed on the longus colli muscle with branches of the intercostal arteries; a descending branch of the profunda cervicis artery running down on the semispinalis muscle joined the posterior scapular arteries; the inferior thyroid artery on each side was a branch of the common carotid. The deformity in this case was, as it probably is in all of these cases, due to a faulty development of the part of the fourth left branchial arch, which extends from the left subclavian artery to beyond the ductus arteriosus. The heart, which was also exhibited, showed extreme hypertrophy of both sides, all the cavities were much dilated, the dilatation keeping pace with the hypertrophy. In the apex of the ventricular wall was a large patch of fibroid degeneration. It was pointed out how extremely rare the deformity was, very few cases having been recorded, and only one of these had been diagnosed during life. The age to which patients thus deformed attained varied very much, for one man lived to be ninety.

Dr. HOBSON read for himself and Dr. LANCHESTER the notes of a case of Caseous Pneumonia of the Entire Lung simulating Empyema, with general Tuberculosis, which occurred in a little girl who died seventeen weeks after an acute attack of disease following on a term of delicate health. The symptoms and physical signs were those of an empyema of the left side, including marked bulging and displacement of the heart to the right. Upon this diagnosis the chest was tapped in several places, and also incised, but with negative results. A drainage-tube was, however, inserted into the wound, which continued to discharge sero-pus to the end. A spontaneous opening formed subsequently at the seat of one of the punctures in the axilla, and purulent fluid continuously drained through this. The surgical treatment was strictly antiseptic. A few days before death symptoms of tubercular meningitis came on. After death there was found to be no pleuritic effusion, but the whole of the left lung was solid, distended, and filled with dry caseous material, which, however, had softened down and left a cavity in the superficial parts of the upper lobe corresponding to the axillary opening. The artificial opening simply led into a blind channel in the lower lobe. The right lung was studded with miliary tubercles. There were also tubercles in the fatty liver, in the kidneys, and spleen. There were tubercular ulcers in the small intestines. The microscopical appearances in the affected lung showed thickening of pleura, a decided but not uniform thickening of the alveolar walls, and the alveoli stuffed with inflammatory products in which epithelial elements could only occasionally be traced. As far as the experience of the authors went this case was unique. The sign which of all others is regarded by writers as diagnostic of effusion as from pneumonia—viz., displacement of the heart and bulging of the chest walls—was here present. The uniform consolidation and caseation of the entire lung, with an absence of a similar process on the opposite side, was also remarkable. The only cases which seemed at all parallel were those that have been described by Virchow, Wagner, and others as syphilitic pneumonia in infants. The possibility of syphilis in this case seemed to be out of the question.—Dr. GOODHART had seen one other case which was exactly like it. It was, he thought, not a rare condition. He considered that the disease was one of childhood. It was not a syphilitic form of pneumonia in his opinion. In many respects it resembled a tumour of lymphomatous structure.—Dr. DYCE DUCKWORTH did not think that a caseous bronchial gland could originate such extensive disease as had been exhibited in this specimen.—Mr. H. T. BUTLIN recalled two cases in his experience at the Hospital for Sick Children.—Dr. ANGEL MONEY had met with two cases of

diffuse pneumonia which simulated empyema during life out of 300 autopsies.—Dr. SAMUEL WEST spoke of the frequent mistake which had been made in diagnosing between consolidation and pleuritic effusion. The specimen shown by Dr. Hobson reminded him of a sarcomatous growth.—Dr. LANCHESTER said the microscopical as well as the macroscopical characters were different from those of syphilis. No other conditions than pleuritic effusion and this form of consolidation could give rise to bulging of the chest walls, displacement of organs, and the other physical signs.

Mr. ARTHUR E. BARKER read notes of a specimen of Tubular Epithelioma. The sections and drawings exhibited were taken from an epitheliomatous tumour of the left upper jaw, on account of which Mr. Barker had removed that bone more than four years ago, the patient having been exhibited last May to the Society without any trace of recurrence. The whole of the bone was removed with the exception of a part of the orbital plate, the corresponding part of the soft palate being left intact. The tumour was extensive, but distinctly limited, and did not involve any glands. The recovery was rapid and complete. Sections of the growth showed an almost adenoid structure. The groundwork consists of a well-developed, smooth, fibroid tissue, in which large groups of cells are arranged in a manner recalling, in part of the growth, the whole of a racemose gland, in other parts resembling tubular glands in section. In the centre of most of these groups is a lumen, in some apparently the result of mucous degeneration, in others appearing like the central lumen of a gland lobule. The cells composing the lobule are arranged without any regularity towards its centre in some cases, but are more evenly placed peripherally as a rule. They are smaller than ordinary glandular epithelium, but suggest the latter on the whole rather than that they are connective tissue derivatives. The growth appears to be identical with those described by Mr. Eve as "multilocular epitheliomata," also found in the upper jaw. The slowness of its growth (three years), the distinct limitation of its border, and the immunity from recurrence, offer a marked contrast to most other epitheliomata, but are what we would expect from an examination of the structure of the growth, which shows a high differentiation of structure, and consequently a diminished malignancy in every way.—Mr. H. T. BUTLIN said that the specimen was not an epithelioma; it appeared to be a carcinoma, or a tumour which had hardly passed into carcinoma. It was not like the cases which M. Terrier described under the designation of "boring" epithelioma of the upper jaw, which was of a very malignant nature and greatly destroyed the osseous structures.—Mr. HARRISON CRIPPS would not have described the specimen either as an epithelioma or carcinoma, but as more allied to true adenoid growths. He believed that the growth was of a papillomatous or "cauliflower" structure, what appeared to be spaces being really the stalk, which was coated by the regular layers of epithelium.—Mr. W. HULKE asked whether the structure were equally distinct at the extreme periphery of the tumour as in the centre.—Mr. BARKER replied in the affirmative. He suggested that the specimens be referred to the Morbid Growths Committee.

Dr. PERCY KIDD read a paper on four cases of Cardiac Aneurysm. In the first case, which was that of a man, aged twenty-three, the aneurysm of the undefended space was obviously of congenital origin, and due to imperfect development of the membranous part of the ventricular septum. The dilatation of one sinus of Valsalva was no doubt the result of atheroma. The second and third cases, which occurred in men, aged twenty-one and forty-three respectively, illustrated the influence of friction of pendulous vegetations against the cardiac walls, the resulting erosion of the endocardium being the starting-point of an aneurysmal bulging. In both these cases there had been rheumatic fever, and great pain in the præcordial region was a prominent symptom during life. In the fourth case, that of a man aged forty-seven, the aortic valves and aneurysm were the seat of a marked fibroid change, and there were no traces of endocarditis. The patient had frequently had chronic rheumatism, but it is doubtful whether he ever had rheumatic fever. It is now well known that aneurysm of the heart is dependent on a gradual yielding of some diseased part of its walls to the intracardiac blood pressure. Of the four cases under consideration, all but one were instances of aneurysm resulting from endocarditis, acute or chronic, of rheumatic origin. In all four cases the aneurysm occurred in males.—Dr. ANGEL MONEY referred to the case of a female child, aged five years, who was idiotic. At the autopsy an aneurysm was found at the site of the undefended space. The aneurysm opened up the laminæ of one of the flaps of the tricuspid valve; all the valves were in a "pouchy" and thickened state. In the right cerebral hemisphere there was a tumour, probably gummatous, the size of a Tangerine orange.

Dr. HOWARD TOOTH read notes of a case of Diffused Lympho-sarcoma of the Liver. The specimen was taken from a child aged five, who had been in perfect health till within six months of her death, during which time she had lost flesh rapidly, and suffered from diarrhœa and epistaxis. At the post-mortem examination the glands of the neck were slightly enlarged; there were tubercles in both lungs, some caseating; the bronchial glands were not enlarged. The spleen and kidneys were natural, but pale. The abdominal lymphatics were apparently normal. The liver was uniformly enlarged, its surface smooth, its colour nearly white, and weighed forty-eight ounces. No isolated growths were seen. Microscopically the liver was found to be infiltrated with small round cells. Near the surface of the organ there was not so much glandular destruction as towards the centre. A considerable amount of fibrous tissue was seen in the central part of the organ. This condition was a very uncommon one, especially in so young a child. It might be taken for a leukhæmic enlargement, but there was no concomitant enlargement of the spleen or lymphatic glands, neither was it likely to be cirrhotic in nature. The amount of connective tissue was small, and there was no history of jaundice or ascites.

Dr. THEODORE ACLAND brought forward two cases of Paraplegia, in which there had been great ulceration of the intestines. The clinical history of the two cases was very similar; both had contracted syphilis, and in both of them the disease, which resembled simple softening of the cord, ran a comparatively rapid course; the one terminating in less than three weeks, the other in less than a month, from the onset of the disease. In both cases the ulceration had been mainly confined to those parts of the bowel which had been most distended, in the one case occurring in the small intestine, in the other in the stomach and colon. The question naturally arose whether the lesion of the central nervous system stood in any causal relation to the ulceration of the bowel. The more usual causes of ulceration of the bowel were severally discussed: tubercular, syphilitic, cancerous, and typhoid ulceration being successively excluded. With regard to the last form of ulceration it should be noted that in one case Peyer's patches were chiefly affected; the lesion, however, was like a simple loss of substance rather than an inflammatory affection of the glands, and the temperature was quite unlike that of a well-marked case of enteric fever, since, after the first rise to 102°, the temperature never rose above 100°, and was more often subnormal. The question was then raised whether the lesions might not be a simple ulceration due to distension, or whether they might be due to loss of nerve power and formed on the principle of a bedsore, by great internal pressure occurring in a viscus whose distension was due primarily to the lesion of the nervous system. In support of this view, it was urged that in the case of which the affected parts had been submitted to a microscopic examination the chief injury seemed to be in the dorsal region of the cord, which implied a probable implication of the roots of the thoracic ganglia, which gave rise to the splanchnic nerves. A series of microscopic and macroscopic specimens was exhibited in support of the view taken by the speaker.

Mr. VICTOR HORSLEY showed a recent specimen of Artificial Myxœdema in a Monkey. It exhibited the macroscopic appearances fifty-four days after removal of the thyroid body. There were opacity and a gelatinous sticky state of the connective tissues throughout the body; great swelling of the salivary glands, which were pale and semi-translucent; atrophy of the muscular substance of the lower border of the right ventricle of the heart; swelling of the spleen, and commencing atrophy of the cerebral convolutions.

The following card specimens were exhibited:—Dr. Charlewood Turner: Hæmatoma of Dura Mater, and two cases of Endocarditis with Ulceration.

MEDICAL SOCIETY OF LONDON.

A GENERAL meeting of this Society was held on Monday last, Mr. Arthur E. Durham, F.R.C.S., President, in the chair.

Mr. EDMUND OWEN read a paper on Lancing the Gums. Not many years ago every practitioner carried about a lancet case, now the thermometer had to a great extent supplanted

it. Indeed, that excellent thin-bladed instrument had fallen into unmerited neglect. Probably improved methods of diagnosis had shown that many of those ills which were previously ascribed to dentition, because they happened to accompany it, had really no dependence upon it. Dentition used to be regarded too much as a mechanical process; a tooth was on the wrong side of a tough gum and had to be helped through by scarification. Mr. Owen maintained that dentition was a simple physiological process, and that it stood in little need of professional assistance. The belief seemed somewhat widely spread amongst the laity that dentition was rather a clumsy, if not a cruel, matter. "My children always cut their teeth with a big head," says one mother. Should it not rather read, "My children are improperly fed, and are rickety"? There was a special trouble apt to be associated with teething, and that was infantile paralysis. The practitioner should be always on the watch for it; its very symptoms were apt to obscure it, and when the limbs became wasted or deformed bitterness was apt to be expressed by the mother because the doctor had assured her that that feverish attack of many months ago was "only from teething." What, he would ask, was the exact condition of gum which required scarification? Was the gum often found swollen and tender from an attack of congestion or inflammation, the direct result of dentition? If such cases are of frequent occurrence, who sees them and officiates? For his own part, he had carried a lancet in his card-case for years, but he had never yet found work for it upon a child's gum. Possibly others might give a different experience, and describe lancing the gums as a "good remedy out of fashion." Would the dental surgeons give their experience of the actual or probable effect of scarification upon the development of the teeth? In England the operation was at one time very much the fashion; now one hears little of it.—Dr. C. GODSON was sure that teething did cause pain, and that the lancet was useful.—Dr. BRAXTON HICKS agreed with the previous speaker. It was necessary to bear in mind the delicate nervous organisation of the infant. He thought that the eruption of the teeth was attended with reflex phenomena of disturbance.—Dr. PARAMORE also concurred with the views of the previous speakers.—Mr. HAMILTON CARTWRIGHT spoke chiefly of the dominance of the nervous system of the infant as an argument in favour of lancing the gums. He felt sure that diarrhœa and convulsions were caused by tension of the gums. Lancing the tumid glistening dental sac was of the greatest importance.—Dr. C. J. HARE said that his optimism had received rude shocks in the course of his existence. Fashion dominated everything. So it was with bleeding, which even now was capable of saving many lives. Abstraction of blood from the gums was a valuable remedy.—Dr. WEBB testified to the efficacy of lancing the gums.—Dr. SANSOM did not consider that the eruption of the teeth was a physiological process in the sense that it was not liable to great disturbances. He thought that there was a liability to go too far in the direction of lancing the gums. He referred to the association of diarrhœa with dentition, and found statistically that the greatest accession of diarrhœa coincided with the period of eruption of the first temporary molars.—Dr. S. TAYLOR thought the lancet might be abused as well as used. Injudicious rubbing and chewing was responsible for the hard and horny cuticle which sometimes coats the gums.—Mr. LOWNE said that nine out of ten cases of infantile diarrhœa were due to improper feeding. He could not understand how the eruption of the teeth could reflexly cause diarrhœa. He did not know that he had ever done any good with the gum lancet.—Dr. RADCLIFFE CROCKER thought that the instances in which the gum lancet could be used with advantage were few. Dentition was made to serve as the cause of almost every disease to which children are liable.—Dr. W. DUNCAN had seen a goodly number of cases of diarrhœa and convulsions which he was positive were due to dentition. He did not think that the mere abstraction of blood was of any value in relieving the sufferers.—Dr. TRAVERS had not seen a single instance in which he felt justified in using the lancet in the last nineteen years.—Dr. EWART said he was a firm believer in the value of lancing the gums, though in his experience it was but rarely required.—Dr. DREW believed that lancing of the gums would be necessitated in febrile conditions associated with pains in the gums lasting more than two days. Diarrhœa, bronchitis, and suppuration of the middle ear might be caused by dentition.—Dr. DE HAVILLAND HALL said that since the introduction of bromide of potassium into therapeutics the lancet had probably fallen into disuse.—Dr. PARAMORE asked whether any harm had been done by lancing the gums.—Mr. PEARCE GOULD believed that the bleeding resulting from lancing the gums had sometimes proved fatal.—Mr. EDMUND OWEN, in reply, felt sure that lancing of the gums had been practised too much.

HARVEIAN SOCIETY OF LONDON.

A MEETING of the above Society was held on Thursday, October 16th, Mr. George P. Field, President, in the chair.

Interstitial Keratitis.—Mr. JULER, in a paper on this subject, referred briefly to the well-known changes noticed in the tissue of the cornea as a result of chronic inflammation, and dwelt upon the leading clinical features and upon the treatment of the affection. One eye was usually affected for two or three months before the disease extended to the other eye. Pain and photophobia were symptoms subject to much variation; photophobia, when present, generally pointed to the existence of superficial ulcerations. Prognosis was favourable, the opacity ultimately clearing up completely, but the process of cure was slow. The systematic administration of grey powder and of tonics, and the local use of atropine, were eminently successful. A congenital syphilitic taint could be traced in at least 90 per cent. of the cases, and with this marked anæmia was generally combined.—The PRESIDENT alluded to the frequency of interstitial keratitis in cases of diseases of the ear. In his experience girls were affected in a much higher degree than boys.—Dr. JAMES THOMPSON expressed his firm belief in the syphilitic nature of the affection, and in its curability by mercury. Dr. Thompson called attention to a sign of congenital syphilis, never absent in these cases, and to which he had found no reference in medical literature. In syphilised children, instead of the clean frontal line formed by the healthy hair of the scalp, an irregular border of fine fluffy hair, about half an inch to one inch wide, is almost invariably present.—Mr. HARTRIDGE referred to the persistence in the cornea, after apparently complete cure of the opacity, of fine lines or stripes, due to the obliterated vessels of the "salmon-patch" of Hutchinson. A case was mentioned in which the keratitis was the outcome of acquired syphilis.—Dr. BUZZARD wished to remind the Society that the great advances made in the pathology and in the treatment of the affection were mainly due to Mr. Hutchinson's teaching. The syphilitic nature of the disease was no longer a matter of doubt, and the propriety of a mild mercurial treatment could hardly be questioned.—Dr. ALDERSON gave the full particulars of a case which exemplified the insidious mode of onset sometimes observed; the patient recovered perfect vision under the administration of grey powder and quinine, with occasional purgatives.

A Demonstration on the Mechanical Principles of Surgical Apparatus, by Mr. NOBLE SMITH.—He remarked that although the application of splints and their management in the treatment of ordinary fractures received a full share of attention in lectures and in text-books, the use of apparatus for orthopædic cases was seldom adequately dealt with, and the principles which ought to guide the surgeon in devising and in using such apparatus were almost entirely ignored. The student, left in ignorance of these matters, was obliged in after years to rely too much upon instrument makers, whose knowledge of surgery was necessarily incomplete. Mr. Noble Smith demonstrated by means of a lay figure the principles which he thought should be followed in applying a splint for hip-joint disease; he also explained by means of diagrams his views as to the successful use of apparatus in cases of diseased spine, of knock-knee, of bowed legs, and of other orthopædic affections.—Referring to some of the author's remarks, Dr. JAMES THOMPSON stated that he had recently removed a plaster jacket which had been worn for three years without any interruption. The skin presented no abrasions or marks of any kind, and the boy had felt comfortable throughout. There remained no trace of any spinal deformities.—Mr. R. FITZROY BENHAM did not regard the model exhibited to be an accurate illustration of diseased hip joint. The pain stated to be produced by mere extension of the limb was not brought about by pressure of the fluid against the upper part of the acetabulum, but by contact of the opposed inflamed surfaces. He failed to see the difference between the

apparatus exhibited and the apparatus known as Thomas's splint. Mr. Benham did not consider a padded back-board to be the best means of support in Pott's disease, but preferred the poroplastic jacket. Sayre's plaster jacket, unless applied with great care, might be worse than useless. He did not agree with Mr. Noble Smith that in severe cases of genu valgum it was advisable to allow the patient to go about with walking instruments until the inner malleoli could be brought together by means of appropriate supports, rest, and, above all, manipulation.

CAMBRIDGE MEDICAL SOCIETY.

AT a meeting of this Society, held on October 3rd, Professor HUMPHRY read the notes of a case of Spontaneous Fracture of both Thigh Bones. S. L——, aged fifty-six, a healthy-looking woman, broke her right thigh bone under the following peculiar circumstances in 1855. For several years previously the limb had been subject to pain, chiefly about the middle of the thigh. A month before it broke the pain was worse and she could scarcely lift her foot from the ground. Two days before it broke she caught her toe against the stair; this caused sharp pain in the thigh and a lump formed near the middle. She was walking, when it seemed as if the left foot caught, and she fell; but she is sure that she felt the right thigh break before she reached the ground. It was treated by a surgeon with splints, and united in about five weeks; the pain disappeared and the limb got quite strong. She remained quite well till soon after Christmas of 1856, when a pain came across the left thigh, similar to that which she had before experienced in the right. The limb was in very much the same condition as the other before it broke, and the pain was very bad, so that she feared it would break. On March 1st, it broke in much the same way as the other; she made a kind of stumble and felt it break before she reached the ground. She was admitted into Addenbrooke's Hospital and a long splint applied. The parts united in the usual time and became quite firm. The pain left the thigh, but she began to complain of pain in both arms a little below the shoulder. The patient was soon after unfortunately lost sight of. Professor Humphry referred to three cases recorded by Mr. Henry Smith of spontaneous fracture of the arm, in which rheumatic pains had been felt previous to the fracture. Also to one by Mr. Holmes of fracture of the femur in a stout young man whilst walking across the room, union taking place readily. The cases to which he wished to draw particular attention were those in which a bone suddenly gives way in a tolerably healthy person, the fracture often preceded by pain, and union taking place as early and as well as in other fractures. All these features were well illustrated in the remarkable case he had first related. Whether there was some inflammatory condition of the bone or some disorder of the trophic nerves previous to the fracture he was unable to say, but they were distinguished from other cases in which spontaneous fracture occurred, for instance, in mollities ossium, in cancer, locomotor ataxy, or from violent muscular action.

Mr. CRIBB (Bishop Stortford) communicated a case by letter, of a boy, aged eight, who in turning himself in his carriage Fractured his Left Femur.

Mr. ALEX. HILL exhibited a specimen of Epignathus which he had received through the kindness of Dr. Sunderland, of Thaxted, Essex, and had dissected with a view to discover if possible the explanation of this form of monstrosity. The autosite was a well-formed seven months' female fœtus. The parasite which depends from its mouth and nostrils without in any way causing their malformation, and very slightly distending the mouth, consists of a number of larger and smaller cotyledons with a total size rather greater than that of the head of the autosite. A cotyledon about the size of a chestnut with a narrow stalk projects from each nostril. One of those projecting from the mouth presented a considerable superficial resemblance to an ill-formed fœtal head with mouth and hairy scalp and central core of bone. After careful dissection Mr. Hill came to the conclusion that this resemblance was only accidental. Another mass, of the size of a bantam's egg, was covered only by a transparent membrane, and consisted of irregular columns of liver cells scattered through a matrix of fœtal connective tissue. This rudimentary liver was profusely supplied with bloodvessels. The stalk of the parasite was attached only to the basi-sphenoid and back of the vomer. It received a large artery from one of the pharyngeal arteries on the left side, and also a small artery from the left internal carotid inside the skull, communicating with a minute branch from the right internal carotid, and descending through the open pituitary canal. The brain, including the hypophysis cerebri, was perfectly normal. No specimen of this form of monstrosity is to be found, as far as Mr. Hill is able to discover, in any of the museums in Great Britain or Ireland.

Dr. CROWDEN (Waterbeach) reported a case of Concretions in the Pancreas (specimen shown) extending over twenty-five years. W. B. C——, married, aged fifty, robust and of temperate habits, consulted him in 1880, giving the following history. About his twenty-fifth year he suffered from scrofulous glands in the neck, for which he underwent a long course of iodide of potassium. Two years after he suffered occasionally in the morning from great pain in the epigastrium. The attacks soon became paroxysmal, and were considered to arise from indigestion; they increased in frequency and severity, chiefly during the effort of defecation, and were accompanied with peculiar emotional phenomena. When seen during the paroxysm his countenance was pallid and bathed with perspiration, expressing the greatest agony. Before his death, which occurred suddenly, he became very restless and exhausted. At no time were there any physical signs, and the symptoms were so masked by the emotions of the patient that during life the case was never recognised. The post-mortem examination revealed a hard substance near the centre of the pancreas, the head appeared natural, but, extending from about the middle of the body, a line of prominences could be seen running along the long axis to the tail, accompanied by great structural change. Some of these masses were very pointed, denuded, and projected under the areolar tissue and peritoneal covering. The lower part consisted of one amorphous mass of concretions without any soft gland structure. The peritoneum and wall of the stomach close to the sharp points were acutely inflamed, but there was no effusion. The concretions consisted of carbonate and phosphate of lime.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

A MEETING of the above Society was held on Oct. 9th, Mr. W. A. Garrard, President, in the chair.

Mr. GARRARD read a paper on the Treatment of Wounds. He thought we owed a debt of gratitude to Sir Joseph Lister whether we adopted his treatment of wounds or not, for he had been the means of bringing home to every surgeon the importance of personal attention to every detail of dressing as well as absolute cleanliness, thus making it possible for the humblest provincial surgeon to obtain results equal to those of the most eminent, except in such cases as opening large joints and deep cavities, as empyema, psoas and other deep abscesses connected with carious bone. He did not adopt his method in all its details, believing that as good results were obtained by simpler means. In amputations and other large wounds, he washed them first with hot iodine water, as recommended by Mr. Bryant, and then dressed with dry absorbent cotton, drainage, when necessary, and gentle elastic pressure, keeping the wound always dry. He considered the absorbent cotton impregnated with salicylic acid was much better than the favourite gauze, which was not sufficiently absorbent to keep the wound dry. Taking the last seventy-nine cases at the Rotherham Hospital, and excluding four who died in a few hours from very severe injuries requiring double amputation, there were four deaths. One was an old man, who had both legs amputated for severe injury, and died on the fifteenth day; another on the sixth day, after herniotomy, the hernia having been strangulated eight days before admission; the bowel sloughed. Neither of the two other cases died from blood-poisoning. For the arrest of hæmorrhage Mr. Garrard, whilst admitting that the catgut ligature was an excellent method, much preferred torsion, which he always adopted, believing it to be the simplest, the nearest approach to nature's own method, and not liable to be followed by secondary hæmorrhage. He had never seen an artery bleed again after having been once properly twisted, and had never had to reopen a wound on that account.—Dr. BANHAM, Mr. PYE-SMITH, Mr. ATKIN, Dr. PORTER, and Mr. WALKER joined in the discussion which followed.

At the meeting on October 23rd, the President in the chair, Mr. SNELL exhibited a section of Bony Tumour of Conjunctiva, as described in the Transactions of the Ophthal-

mological Society; and also small flat Mirrors for Retinoscopy, as suggested by Mr. Priestley Smith, the cost being only a few pence each.

Dr. BANHAM introduced a patient suffering from Unrhythmical Spasmodic Torticollis, and who had been affected in this way for about ten months. The patient had been under his care at the infirmary four months previously, and after a few weeks' treatment with full doses of bromide of potassium and the application of galvanism to the affected muscles she had greatly improved, and left the infirmary of her own accord. Three weeks ago she again presented herself; the spasms were then more violent than ever. Previously when in the infirmary the spasms were limited apparently to the right trapezius and right sterno-cleido-mastoid, and could be arrested by firmly grasping the trapezius near its attachment to the occiput, or by the patient lying on the left side, with the left side of the face fixed firmly against the pillow. The spasms were not now so influenced, or to a much less degree, and the left trapezius seemed also involved, so that the head was now often thrown back, the neck being arched to its utmost possible limit. There was no history of syphilis, and no catamenial irregularity, excepting to a slight degree during the last four months. Dr. Banham remarked that the etiology of these cases was very obscure. He could find no cause for the symptoms appearing in the patient. She was an intelligent woman, the mother of several healthy children, and never exhibited any trace whatever of hysteria. He had seen a large number of somewhat similar cases, and he felt that they ought not to be dismissed as of no moment; they sometimes did badly, ending in epilepsy, idiocy, or death. When the movements were rhythmical he thought the prognosis more favourable.

Mr. C. ATKIN read the notes of a case occurring at the infirmary in the practice of Mr. Favell, in which he had ligatured the Brachial Artery for Secondary Hæmorrhage after amputation on the upper third of the forearm, with an immediate marked effect on the inflammatory condition of the stump. Though the flaps healed externally by the first intention, the whole limb went into a state of over-reaction after the amputation, and a general arterial oozing occurred on the tenth day. After ligation of the brachial artery the hæmorrhage ceased, and the limb, which before had been swollen to twice its natural size, dark-red, doughy, and semi-fluctuating, resumed its normal form and colour in a few hours.—Mr. JACKSON remarked that deligation for the arrest of hæmorrhage was first performed in England by Mr. Favell at the suggestion of Mr. G. A. Brown, then the house-surgeon of the Sheffield Infirmary, and now of Tredegar. Mr. Brown had already had a case in which sloughing phagedæna of the palm had been arrested by the ligature of the radial and ulnar arteries for hæmorrhage.—Mr. KNIGHT and Mr. BROWNING also made observations.

Dr. C. H. WILLEY read a paper on the Recent Epidemic of Small-pox in Sheffield. The epidemic commenced in February, and ended at the end of September last. During this time 203 cases were admitted into the Borough Fever Hospital. Details of these 203 cases, as regards the influence of vaccination on the type of the disease, complications, length of illness, and mortality were given—150 had been vaccinated, 4 revaccinated, and 49 unvaccinated. The mortality among the vaccinated and the unvaccinated respectively was 4½ and 28½ per cent. Of the vaccinated, 77 per cent. were of the two milder types, and of the unvaccinated 96 per cent. were of the two most severe types. The average duration of the illness was for the vaccinated twenty-two days, and for the unvaccinated forty-two days. Of the four revaccinated cases, three were not vaccinated until after they had contracted the disease, in the fourth case an interval of thirty-six years had elapsed since the operation. Complications occurred in 12 per cent. of the vaccinated and 71½ per cent. of the unvaccinated.—The following gentlemen joined in the ensuing discussion; the PRESIDENT, Mr. SNELL, Mr. LONGBOTTOM, Mr. WALKER, Mr. BROWNING, Mr. SUMNER, Dr. DYSON, Mr. A. JACKSON, Mr. KNIGHT, Dr. LEYTH, Mr. RECKLESS, and Dr. MARTIN.

THE Local Government Board have finally "ordered" the guardians of St. Saviour's "to cause a new infirmary to be erected (at Champion-hill) at a cost not exceeding £93,163"; the fittings and furniture are not to exceed £20,000.

Reviews and Notices of Books.

Intestinal Obstruction, with an Appendix on the Action of Remedies. By HUGH OWEN THOMAS, M.R.C.S. *Abdominal Hernia.* By RUSHTON PARKER, B.S., F.R.C.S., Professor of Surgery in University College, Liverpool. London: H. K. Lewis. 1883.

THE second part of this volume, consisting of Mr. Rushton Parker's essay on Abdominal Hernia, has already been noticed by us, when it appeared in a separate form. By far the greater part of the book before us is from the pen of Mr. H. O. Thomas, who is chiefly known to the profession as the inventor of excellent splints for the treatment of diseased joints. Mr. Thomas has certainly fulfilled one of the conditions of successful authorship; he has had something to say, and that "something" is to a large extent valuable to the profession. Unfortunately the manner in which the book is written is such as sorely to try the reader's patience, and to quickly put him out of sympathy with the author. Sentences are met with which are so involved as to be almost incomprehensible, and the most round-about phraseology is used to express imperfectly and inexactly quite simple facts or views. The criticism of the teachings, writings, and practice of many of the most distinguished contemporary physicians and surgeons as well as of other times is in a style that is happily not common, and which for bad taste is only equalled by the care taken to show that the problem which has hitherto puzzled all physicians and surgeons has at length been completely solved by Mr. Thomas, and that the treatment of intestinal obstruction is at length and for ever established on a true and scientific basis. These are errors which appear on the surface, and must arrest attention, and we can well believe that many would be inclined to put aside the book as useless on the assumption that no sound grain would be mixed with so much chaff. But it is not so. Mr. Thomas's teaching is well worthy of the careful attention of the profession, who will not be at a loss to see the extent of its value. The first point insisted on by him is the absolute necessity of withholding purgatives in every stage of the treatment of all cases of "intestinal obstruction," even the mildest. He insists over and over again that quite mild and easily curable cases of "obstruction" are quickly converted into severe and even fatal cases by the administration of purgatives. He also discountenances the use of enemata, purgatives (simple or nutrient), the introduction of long rectal tubes, inflation of the colon, or even digital rectal exploration. He teaches that all these are practically useless, and actually harmful from the peristaltic action they excite in the intestine. This may be called the negative side of the treatment recommended. The positive is this: morphia is to be given subcutaneously in amount sufficient to allay pain, and to lessen or to control entirely the vomiting, but vomiting once or twice a day is looked upon as a proper relief of the distended intestines so long as the obstruction lasts, and not as a symptom to be removed entirely. The diet is to be entirely liquid—not milk—and given in small quantity. This treatment is to be continued for some time after the "obstruction" is overcome. As adjuncts, the foot of the patient's bed is to be raised, cold wet cloths may be placed on the abdomen, and if the distension become extreme and percussion yield a uniformly clear note, paracentesis is to be performed with a fine trocar and cannula, and repeated as often as may be required. Mr. Thomas is generally opposed to operative interference, but when the treatment he recommends has been carried out with strict exactness, and the pulse continues or becomes rapid, "while the tongue has the typhoid appearance with intense thirst, and the vomiting exceeds four times in twenty-four hours, this condition, with or without collapse, indicates the necessity for considering

the advisability of resorting to surgery. ..... These are the signs indicative of the time when the patient ought to be given the chance that can be afforded by a surgical operation." It is only necessary to add that Mr. Thomas treats all cases of failure to pass the intestinal contents with due regularity and frequency in the same way, with the single exception of external hernia, although it is not made apparent why the treatment of strangled bowel in the scrotum or groin is not amenable to the treatment which we are given to believe is the only course proper to follow in the precisely analogous condition within the abdominal cavity. We therefore read nothing of differential diagnosis of the various forms of internal intestinal obstruction, except certain brief, almost contemptuous references to it as unnecessary for guidance in treatment. Notes of several cases are included in this essay; the great bulk of them are cases of typhlitis and of enteritis, and among them are two or three cases of enteric fever. The treatment is good so far as it goes, but in that it to a large extent ignores the various causes of intestinal obstruction it stops far short of what is desirable. All who read this essay will be repaid, and will thank Mr. Thomas for his strenuous insistance on the evil effects of purgatives, and for his judicious directions for the feeding of these patients. We are conscious that there is real merit in this book, and regret that it should be marred by the defects to which we have referred.

OUR LIBRARY TABLE.

Hygiene: a Manual of Personal and Public Health. By ARTHUR NEWSHOLME, M.D. Pp. 408. London: Gill and Sons. 1884.—The author informs his readers in the preface that this work was written from the notes of the lectures he delivered at Exeter Hall, to the students preparing for the examination in hygiene of the science department in the advanced stage. We congratulate the students on having had the subject brought before them in so clear a manner. The book appears to us remarkably well adapted for a handbook for the study of the principles of public and personal hygiene. It brings under consideration the various subjects treated of in clear and intelligible language, and points out the measures necessary for the prevention of disease and the promotion of health and comfort. We strongly recommend the book to the attention of the public generally, as containing much valuable information and advice. In addition to a full table of contents it has the advantage of a copious index.

Studies in Life. By H. SINCLAIR PATERSON, M.D. Pp. 197. London: Hodder and Stoughton. 1884.—This, like the Health Studies by the same author, which we recently noticed, appears to consist of a course of eight lectures, delivered to a society of young men. It treats of life and its characteristics, its origin, varieties, record, natural history, enemies, and results. In it the views of Huxley, Darwin, Tyndall, and Herbert Spencer are discussed in a temperate and fair spirit; the enemies of life are brought under consideration, especially pestilence, famine, intemperance, and the insanitary conditions which give rise to disease; and the lessons taught under the "results of life" are well deserving of serious consideration. The book is calculated to promote the purpose for which it was written, and to satisfy the young men to whom the lectures were addressed that "life is full of meaning, full of power, and full of grandeur, when we look at it in the light of God's Word, and when we accept the teaching that Word gives us concerning its present purposes and its eternal issues."

The Medicine Stamp Tax. By C. E. MEETKERKE. London: Wyman and Sons. 1884.—The question of the repeal of the Medicine Stamp Tax has of late attracted so much attention that we record with pleasure the appearance of a work which deals exhaustively with the subject. It is, we believe, mainly due to the action of THE LANCET that the matter has been so warmly taken up by almost all classes of society. Nearly two years ago we pointed out the evil of a practically unlimited sale of poisons under the thin but misleading guise of "patent medicines." It would not be tolerated for a single instant, but that a considerable income is derived from the sale of stamps. We are glad to find that the author of the work before us entirely coincides with this opinion, and considers that it is a disgrace to the State to derive income from a source which is clearly not for the public good. The arguments are set forth clearly and logically, and in a manner calculated to carry conviction to the mind of the reader. The Chancellor of the Exchequer will do well to study it carefully.

Canadian Pictures, drawn with Pen and Pencil. By the Marquis of LORNE, K.T. With numerous Illustrations from Objects and Photographs in the possession of, and Sketches by, the Marquis of Lorne, Sydney Hall, &c. Engraved by Edward Wymper. London: Religious Tract Society.—To all who are interested in the history and present condition of Canada—and they are a numerous and increasing class—this handsome volume will be very welcome. It teems with information acceptable alike to the political economist, the naturalist, and the intending emigrant; whilst the beautiful illustrations, the graphic descriptions, and the judicious comments with which the book abounds must gain for it a favourable reception with the general reading community. In order to lessen the amount of ignorance prevailing amongst the British public of the affairs of England's dependencies, the noble author of the volume suggests that information respecting them might with advantage be systematically imparted in the course of instruction adopted in our universities and schools. On the question of climate the author corrects some prevalent misapprehensions. The climate of Canada, he says, has honest heat in summer, and honest cold in winter. Sometimes the thermometer indicates 90°F. in August and 30° below zero in January. But the dryness of the air is so great that the inconvenience and disaster which such intense cold might be expected to entail on the inhabitants are but little felt. McGill University comes in for a brief notice. It is described as a popular seat of learning, with an ever-increasing roll of students in all the faculties, and a gradually lengthening list of endowments. The author gives some interesting sketches of Indian life and customs. The natives are credited with a considerable amount of skill in the use of herbs as remedies for slight ailments; the squaws especially are adepts in the making of decoctions and poultices from trees and shrubs whose healing properties are known to science, and instances of remarkable relief having been obtained by the exhibition of Indian medicaments are narrated. The natives make great use of the sweating bath, which consists of a small arbour formed of interwoven branches of trees, within which are placed heated stones, the steam being generated by pouring water over them. No one can read this book without being impressed with the importance of the "New Dominion" to the interests of the mother country. Its features are portrayed in glowing colours by one who is well qualified to judge of its merits, and who concludes his book by exhorting "those who see the misery, the hopelessness, the overcrowding, and the unhealthiness of the thronged quarters of our great cities" to "rejoice that within fourteen days of London, Glasgow, Liverpool, and Manchester land and healthy life can be provided for all sound in health and limb."

Journal of Anatomy and Physiology. Vol. XIX. Part 1. October, 1884. Edited by PROFESSORS HUMPHRY, TURNER, and MCKENDRICK. Macmillan and Co.—This part contains the following memoirs:—1. Histology of the Vitreous Humour, by Arthur C. Young, and Plates 1 and 2.

2. The Comparative Variability of Bones and Muscles, with Remarks on Unity of Type in Variations of the Origin and Insertion of Certain Muscles in Species unconnected by Unity of Descent, by G. E. Dobson, F.R.S. 3. Congenital Malformation of the Trachea of a Horse, by F. Smith. 4. Nature of Ligaments, by J. B. Sutton, and Plate 3. 5. Osteology of Numenius Longirostris, with Notes upon the Skeleton of other American Limicolæ, by R. W. Schofeldt, and Plates 4 and 5. 6. The Anatomy of Acquired Flat-foot, by J. Symington, and Plate 6. 7. New Method of cutting Sections for Microscopical Examination, by James W. Barrett, M.B. 8. New Method of demonstrating Scheiner's Experiment, by James Barrett. 9. Abnormal Disposition of the Colon, by R. Bruce Young. 10. Delineation of Skulls by Composite Photography, by Arthur Thomson, and Plate 7. 11. Repair of Wounds and Fractures in Aged Persons, by Professor Humphry. 12. Case of Abnormal Development of the Coronary Arteries of the Heart, by F. Charlewood Turner, M.D. 13. Abnormal Ureters, by W. Stephenson Richmond.

Essay on the Experiences and Opinions of John Howard on the Preservation and Improvement of the Health of the Inmates of Schools, Prisons, Workhouses, Hospitals, and other Public Institutions, as far as Health is affected by Structural Arrangements relating to Supplies of Air, Water, Drainage, &c. By R. D. R. SWEETING. Pp. 96. London: Baillière and Co. 1884.—This essay, which gained the Howard Medal of the Statistical Society and a prize of £20, contains, in a condensed form, the reports made by Howard on the sanitary condition of the various public institutions which he visited, at home and abroad, with his recommendations respecting their construction and management. It shows clearly how far ahead he was of the times in which he lived, and to what an extent he anticipated, in his recommendations, the measures which are now held by the best authorities to be essential to the preservation of public health. It brings him before us as a philosopher, a philanthropist, a social reformer, a statistician of no mean order, and an able, clear-headed sanitary pioneer.

New Inventions.

APPARATUS FOR REMOVING FALSE MEMBRANE FROM THE TRACHEA.

THE sad death and self-sacrifice of Dr. Rabbeth was clearly owing to the absence, at hand, of some efficient mechanical appliance for extracting the diphtheritic membrane from the trachea. It is now nearly nine years since I first made use of the aspirator for removing from the trachea inflammatory products threatening to cause suffocation, but finding the utility of the aspirator greatly interfered with, owing to the air being drawn into the trachea by the side of the suction tube, and thus destroying the vacuum, I devised the apparatus figured in the accompanying woodcut. It consists of a hollow piece of vulcanite, about an inch long, passed through the centre of a piece of wash-leather, or what is better, a thin piece of Dr. Scott Alison's impermeable lambskin, about six inches square, which is then tied to a groove (*a*) about a quarter of an inch wide, situated at one end of the piece of vulcanite. The hole through the piece of vulcanite is made a little smaller than the suction tube of the pneumatic aspirator which it surrounds, so that, although the vulcanite can be easily moved along the tubing when the latter is diminished in circumference by stretching, it nevertheless grasps the tubing, when not extended, sufficiently to prevent slipping. Without the piece of vulcanite the wash-leather could not be tied sufficiently tightly to the suction tube to prevent air passing between them and yet allow the position of the wash-leather, as regards its distance from the end of the suction tube, to be readily changed. To apply the apparatus, wet the wash-leather, and as soon as the suction tube has been inserted into the tracheotomy tube or trachea, as the case may be, spread out the wash-leather over the neck of the patient, to prevent all entrance of air except through the mouth, and then turn the tap of the aspirator. By preventing air from entering the tracheotomy tube from without, the full power of the aspirator is available for extracting whatever substance may be in the trachea; but the suction power must of course be regulated as circumstances require. Although the diphtheritic membrane is rarely carried into the exhausted bottle, it is drawn sufficiently far into the suction tube to allow of its being pulled out of the trachea when the suction tube is withdrawn. I keep in my tracheotomy case a piece of indiarubber tubing already passed through the vulcanite with wash-leather attached, so that the wetting of the leather and slipping one end of the tubing over the suction nozzle of the aspirator, which is all that has to be done to make it ready for use, is the work of only a few moments. In the absence of an aspirator, a large syringe might be used to create the suction power. As all rubber goods when not in constant use are liable to perish quickly, the tubing should be seen to several times a year. Dr. Scott Alison's impermeable lambskin consists of wash-leather covered on one side with a thin layer of indiarubber. It is sold by Messrs. Ewen, 106, Jermyn-street, W.

Mansfield-street, W. T. MARK HOVELL.

ACADEMY OF MEDICINE IN IRELAND.

THE second annual meeting took place at the Royal College of Surgeons in Ireland last week, presided over by the President of the College. The office-bearers for the ensuing year were elected, but few changes taking place in the various sections. The Council had recommended a presentation of £100 to Mr. Thomson for his services as general secretary, but that gentleman very properly refused to accept it. The proposal last year caused a considerable amount of opposition, and it would have been in better taste if the Council had not sent a recommendation of the kind for the sanction of the Fellows. A resolution of Mr. SWANZY's was adopted, to the effect that it be referred to the General Council, with recommendation that the Academy should endeavour to encourage original research by grants or otherwise, and to report on the subject. The proposal that in future the election of Fellows should be made at general meetings of the Academy, and that all Fellows should the right of voting, was lost by four votes.

THE POLLUTION OF THE LEA.—At a well-attended public meeting held at Hackney on the 28th ult., a resolution declaring that nothing was feasible to secure the purity of the Lea short of an intercepting sewer to carry the sewage of Tottenham, Walthamstow, Leyton, and West Ham, after treatment, to the Thames at Barking, and that the Home Secretary be memorialised on the subject, was carried.

THE LANCET.

LONDON: SATURDAY, NOVEMBER 8, 1884.

WITHOUT ceremony of any kind the most successful show which has been seen in this country since 1851 came to an end on the 30th ult. The grand total of visitors had reached 4,167,000, or an average of 27,000 per diem from May to November. The secret of the success was doubtless due to the breadth of the Exhibition, if we may use such a term, and to the fact that the articles displayed and the amusements provided were calculated to suit all tastes and to interest everybody, from the philosopher to the village housewife. If we are to have a continuance of such exhibitions (and this desirable project is entertained), it is of course essential that they should pay financially. Any lasting good which may be derived from an exhibition such as that which is just closed is (in this country, where voluntary effort takes the place of State endowment) contingent on financial success. When the guarantors are called upon to make good a deficit, we shall have seen the last Exhibition. The managers of the Health Exhibition did wisely to spare no effort to make the Exhibition attractive. Illuminated gardens, bands of music, concerts and restaurants, were the attractions which brought the crowd and paid the bill, and if a certain percentage of the visitors never succeeded in dragging themselves away from the sensuous pleasures of the gardens, no possible harm has been done. Some of the writers for the daily press seem to have been of the sensuous order, and because the pleasures of an open-air concert and a cigar have kept them from more serious studies, they seem inclined to pooh-pooh the whole affair, and to ridicule the idea of any permanent good resulting from the Exhibition. We do not share this view, but, on the contrary, believe that very few can have visited the Exhibition without deriving some benefit or instruction therefrom. If the Exhibition had its glittering side, it certainly had its serious side as well: and if no good results or lasting impressions remain, the fault lies with the public and not with the promoters. The fact is that while the many have been amused, the few have been instructed. There will be, we are told, twenty stout volumes as the literary outcome of the Exhibition, and this represents a large amount of serious work, produced at great cost.

The library, containing some 7000 volumes on Health and Education, has been very largely used during the summer, the number of readers showing a steady increase. The readers of THE LANCET do not require to be reminded of the Biological Laboratory, which we have been at great pains to reproduce as graphically as may be in our columns. The scientific lessons taught in this laboratory have been of undoubted value, and have succeeded in drawing public attention to the study of bacteriology, which hitherto has been too much neglected in this country. Of Lectures, Conferences, the Sanitary and Insanitary Houses, and of the various exhibits of scientific interest we say nothing, except that they were all at hand for those who had eyes and ears, and taught not a little when these were accompanied by intelligence.

The questions now arise, What is the surplus, and what is to be done with it? The second question is necessarily dependent on the first, and the destination of the surplus must clearly depend on its amount. That there will be a surplus seems certain, and we hope that it may be substantial, but it must not be forgotten that the expenses of the Exhibition have been enormous, and until the accounts are all rendered it is useless to speculate. The Executive Council is well qualified to advise the Prince of WALES as to the bestowal of the surplus funds. There is a rumour that efforts will be made to found a Central Institution for the Instruction of Sanitarians of all grades—an institution which will gather under its wing the various voluntary efforts made by different societies. Our readers will remember, however, that we recently urged with much earnestness that no use of the profits of this great Exhibition could be more satisfactory than to apply them to the creation and endowment of a biological or a bacteriological laboratory, wherein the nature and properties of germs might be investigated. This country has been lamentably behind other countries in this branch of investigation—notably behind France, Germany, and Italy. The admirable remarks of the Duke of BUCKINGHAM, or rather of the Executive Committee of which he is the spokesman, happily show that this discreditable defect in our State provisions is being realised by public men. After referring to the hygienic laboratories, biological and physical, as a leading feature of the Exhibition, his Grace said:—"The maintenance of the laboratories would ensure a means of sanitary research and teaching for the future which England has not had in the past. In these laboratories studies could be carried on and teaching could be given of a kind similar to that which is afforded by various foreign institutions which have been established in the interest of public health. These studies have a direct bearing on the relation of health problems which not only affect the well-being of communities, but exercise an important influence on agricultural and commercial interests." We cannot doubt that his Royal Highness will heartily adopt the views thus foreshadowed for his approval, which we trust to see enforced in the further report promised by the Committee. The Exhibition has been a success as a show and as a financial undertaking. But it will live much more honourably in history if it is associated with a new and permanent impulse to sanitary science. It may seem monstrous that the happiness and prosperity of great nations should be at the mercy of bacteria, beings which, judged by their weight and size, are quite contemptible; but we have to do with facts, and it looks certainly like a fact that such is the case. At any rate, the truth has to be found out. And if this kingdom, which has done so much in the way of leading sanitary science, is not to sink into a third-rate position amongst enlightened nations, it is high time to be showing some sign. We have competent men. We hold the country in which cholera has its seat and home. We practically hold the gate through which it passes thence to Europe to work such vast destruction and disaster as we have seen this year in France and Italy. On every ground we ought to be foremost in the

investigation of great Health questions. The Exhibition itself may have somewhat disappointed those distinguished foreigners who came looking for light on deep questions of sanitation. But if it ends in the establishment of a Hygienic Laboratory, with well-equipped apparatus, and with liberal endowments for those who undertake research, the country of JENNER and CEELY, of PARKES and SNOW, and of SIMON and LISTER will not need to fear comparison or competition with the countries of PASTEUR or of KOCH, or of TOMMASI CRUDELI.

We again venture to express the hope that our great Hospitals, which exist to restore the lost health of the poor, may not be forgotten by the Committee in the distribution of any surplus. These institutions are inexpressibly useful, and at the present time extremely in need of help.

ONE of the most cogent arguments on which the adversaries of the doctrine of the localisation of cerebral function base their opposition is drawn from the difference of symptoms which may be observed between a similar lesion in man and animals. This argument, which possesses no scientific value, has frequently been refuted. Nevertheless, some experimental physiologists weigh in the scales clinical observation against experiments on dogs, rabbits, pigeons, and frogs, and many physicians insufficiently grounded in the question still remain in doubt. To speak plainly there is no contradiction in the evidence. When physicians state that in man certain destructive lesions of the brain always give rise to permanent paralysis of the opposite side of the body, they merely formulate a law which is founded on a considerable number of regular and concordant observations, which cannot be diminished in value by any experimental observation. When, on the other hand, physiologists assert that in the rabbit or pigeon destruction of the cerebral hemisphere does not produce persistent paralysis of the members of the opposite side of the body, and when ocular demonstration is given of the fact, it would be contrary to all scientific logic to contest the statement under the plea that the results were different in man. The field of clinical observation and that of experimental pathology, however much they may lead to the same end, are distinctly separate and ununited. PITRES has contributed an article to the above effect in the *Journal de Médecine de Bordeaux* and has collated the main facts concerning secondary degenerations, which he intends to contribute in full to some forthcoming numbers of the *Archives de Physiologie*. In man the principles which govern the production and topographical distribution of degeneration of the pyramidal tracts as the result of partial destructive lesions of the brain may be stated in the three following propositions. Even very extensive destructive lesions of the "non-motor" regions of the cerebral hemispheres never give rise to secondary degenerations. Destructive lesions of the "motor" region, however limited in area, are always followed by secondary degeneration. The degenerations descend in the lower layer of the cerebral peduncle, in the pons, and into the anterior pyramids of the side opposite to the lesion, a course which accurately corresponds with the well-known path of the pyramidal tracts. In the spinal cord below the decussation of the pyramids the degeneration does not invariably occupy the same regions of the cord. Sometimes the pyramidal bundles pass down only in the opposite lateral column (TÜRCK, CHARCOT, BOUCHARD); sometimes they descend in the opposite lateral column and in the anterior column on the same side as the cerebral lesion; lastly, they may proceed downwards symmetrically in the two lateral columns (PITRES). In all cases the area of degeneration is relatively considerable in extent, and may be estimated at several square millimetres.

In dogs and cats destructive lesions of the occipital lobes do not bring about secondary degenerations of the spinal cord; but similar lesions of the convolutions bounding the crucial sulcus are followed by an appreciable degeneration, which occupies the middle and internal parts of the inferior aspect of the cerebral peduncle, pons, and anterior pyramid of the medulla oblongata on the same side as the cerebral lesion. In the spinal cord the degenerated band is very slender, and generally occupies the lateral column on the side opposite to the cerebral injury. Sometimes PITRES has found symmetrical alterations in the two lateral columns of the cord, but the inner portion of the anterior column has never been altered. In all cases the extent of the area of degeneration in the cord is much less than that of the corresponding area of sclerosis in the cerebral peduncle or pons. Proper allowance being made, the area of degeneration in the spinal cord of these carnivorous animals is relatively and absolutely much less than is found in man.

In rabbits and guinea-pigs destruction of the occipital lobes produces no secondary degeneration. Destruction of the excitable region of the cerebral cortex gives rise, on the contrary, to a descending degeneration, which is easily followed in the peduncle, pons, and anterior pyramid of the same side; but, contrary to what happens in the dog and the cat, the degeneration does not pass beyond the lower part of the medulla oblongata; no sclerosis occurs in the spinal cord.

In pigeons and fowls ablation of the whole of a cerebral hemisphere does not cause any sort of descending degeneration, either in the brain or spinal cord.

A comparison of the above facts leads to the conclusion that the anatomical communications connecting the brain with the spinal cord are not established as a uniform type throughout the vertebrata. In man, a great many of the fibres which start from the motor region of the cerebral cortex are prolonged directly into the spinal cord, consequently the direct cortico-medullary fibres are very numerous. In the dog and cat the greater part of the fibres which start from the excitable convolutions are arrested in the grey nuclei of the pons and medulla oblongata, so that the direct cortico-medullary fibres are relatively less abundant. In rabbits and guinea-pigs all the fibres which begin at the excitable areas cease at the protuberance and bulb; there are no direct cortico-medullary fibres. Finally, in birds the cerebral lobes are not united by distinct bundles to the subjacent parts of the neural axis; these animals have no pyramidal tracts,—or rather this tract, if it does exist, does not begin in the cerebral lobes properly so-called. Bearing these facts in mind confusion seems to pass away when we wish to know how it is that destructive lesions of the brain produce permanent and marked paralysis in man, slight and

transitory in the dog, diffuse and fugitive disturbances of motility in the rabbit, and no disorder of motion in birds.

A SOLITARY case of small-pox in Illinois, that of an immigrant arriving in Chicago in the eruptive stage of the disease, in November, 1879, led to a widespread epidemic throughout the State. The greatest intensity of the disease was in the winter of 1881–82, and the outbreak can only now be regarded as at an end. In the fifth annual report for the State an attempt is made to calculate the cost of the epidemic, reports having been sent in with a view to this. All districts did not report, but it is assumed that the cost per case was the same in the localities from which no news came as it was in the others. The actual cost of dealing with an individual case is first taken, and to this is added what are termed the constructive losses, which include losses to common carriers by interruption of travel and traffic, and to businesses of all kinds by panic, quarantine, &c. Taking the entire State except Chicago, it is estimated that the actual cost incurred in connexion with 2040 cases which were reported amounted to over $281,000,000, and that the constructive losses spread over 14,520 days reached over $3,339,000,000. In Chicago itself the same two items amount to nearly $783,000,000, and the expenses to the entire State from January 1st, 1881, to December 31st, 1883, during which period the disease prevailed as an epidemic, amount in all to close upon $4,404,000,000. This total sum does not include expenses for vaccination, which, in Chicago for example, is performed gratuitously; neither does it take account of the value of human life lost, time wasted, and a variety of speculative items often included in such estimates. In the face of such facts it is hardly surprising that prominence is given to the value of the order relating to compulsory vaccination as introduced into the State. It is certainly limited in its application to schools, but it is reported that whereas on the commencement of the epidemic schools were closed in very many instances, yet that they were reopened on the advice from the Board that enforcement of the vaccination was the only safeguard; and later on it appeared that in only two instances out of a total of 12,000 schools in the State was closure resorted to on account of small-pox.

ATTENTION has lately been directed to the fact that the money difficulties in which many hospitals are now involved are partly due to the too indiscriminate relief which has been afforded by them to persons whose social standing is much above the average position of out-patients. It would seem as if the hospital authorities, having their time occupied with the diagnosis and treatment of the sick who apply to them, do not care to weed out the social grades whose true place is outside the sphere of gratuitous practice; so those who apply are taken as they come. Applicants of the kind in question do not necessarily mean to deceive the hospital authorities as to their ability to pay a fee. Doubtless they do sometimes—as when they send their children, as they have been known to do, under the name and care of some poor dependent to benefit by superior professional skill, free of cost, at some public institution. In other cases they attend the hospital practitioner's clinic simply because they are more familiar with his official than with his private time and place of consultation. In either case they and theirs are out of place in the hospital waiting-room. Emergencies of course allow no rule but that of present necessity. After making every fair allowance and deduction, however, there still remains a number of non-indigent applicants for free relief, who should, in justice, be eliminated from the hospital *clientèle*, and advised to seek the services of a practitioner near their own homes, or, if they prefer it, to attach themselves to the ordinary practice of the hospital physician or surgeon.

The records of dispensary work could furnish instances of a similar, though more limited, misuse of public trust. Workmen's clubs, again, are notoriously unscrupulous in stretching their brotherly consideration to cover wide diversities of status and income. Well-to-do shopkeepers, master builders, and the like, swell the number of their *quasi*-artisan constituencies. How long shall medical men continue to countenance and support such needless benevolence? The measure of professional charity is surely full when they have applied themselves to meet the demands in sickness of the really poor. There is a limit to their encouragement of thrift on the part of those who have enough for daily wants and something over, and it must be evident that to carry charity to those who can and should contribute to it is to lessen the supply available for its proper objects.

The remedy for these abuses, we have seen, consists in the direct exclusion of all persons whose income fairly represents a position in the middle rank from the benefits primarily intended for the lower class of mechanics. Who shall apply this remedy? The rule that one should do for himself what he wishes well done applies here. The treatment of this social evil had probably best be left in the hands of the medical practitioner. The other officials of a hospital or dispensary, or the agents of a benevolent society, can render valuable assistance, but the personal earnestness and conscientiousness of members of our profession should chiefly be relied on to decide whether its generosity shall be the boon of the needy or the shrewd investment of some prosperous man of business.

Annotations.

"Ne quid nimis."

MR. GLADSTONE ON THE REPRESENTATION OF MEDICINE IN PARLIAMENT.

MR. GLADSTONE has caused the following answer to be sent to the Committee of the Association of Members of the Royal College of Surgeons who had desired the Parliamentary representation of registered medical practitioners:—

10, Downing-street, Whitehall, Oct. 20th.

SIR,—Mr. Gladstone has had the honour to receive the communication which you have made to him on behalf of the Committee of the Association of Members of the Royal College of Surgeons, urging that provision be made for the representation in Parliament of the medical practitioners of the United Kingdom. In reply, I am directed to say that Mr. Gladstone readily admits the title of the Committee to raise a question of this nature, but he cannot think that their particular proposition would commend itself to the judgment of Parliament. He would gladly welcome the presence of more members of the medical profession in the

House of Commons, but in his opinion this can only be secured by the means which are at present open to all other professions. I am to add that Mr. Gladstone is unable to admit the contention in your letter that other learned professions are directly represented in the Legislature.

I am, Sir, your obedient servant,
E. W. HAMILTON.

This reply, though very much what we expected, is not satisfactory. Mr. Gladstone denies the direct representation of the other learned professions in the Legislature. He will scarcely deny that they are both directly represented in the House of Lords. The Lord Chancellor is surely not an accident there; neither are the bishops there by chance or by any indirect system of representation. The Lord Chancellor represents Law, and the bishops represent the Clergy and the National Church. The great profession of Medicine has more to do with the happiness and welfare of the people than that of Law, and nearly as much as that of Divinity. Yet such is the defective nature of our Legislature that it is but slightly represented in the Lower House and not at all in the Upper. It is not congenial to medical men to fight the rough battles of the hustings. The weapons of their warfare are not fitted for that kind of strife. But none the less are they entitled to be recognised in every wise State by an honourable place in its Senate.

PANICS IN PUBLIC ASSEMBLIES.

WE have so repeatedly and at such length, from points of view special as well as general, discussed the subject of panics in public assemblies, that it is difficult to offer any suggestion that can claim notice on the score of newness. There is, however, more than sufficient food for thought in this topic, and, without dwelling on the details of the recent lamentable occurrence at Glasgow, or attempting to determine the exciting cause of the catastrophe, which is, indeed, *sub judice*, it may be worth while to offer a few observations on the matter as a whole. Panics will take place as long as assemblies are held, and without in the least abating anything of the remonstrance we, in common with our contemporaries, have from time to time addressed to local and central authorities against the neglect to *enforce* proper precautions, it must be conceded that, even if the assembly in which a panic occurs consisted of a dense concourse of people in the centre of an open plain, without buildings or rails, or anything whatever to prevent the crowd from dispersing, dire accidents would be sure to befall the innermost of the persons congregated, and deaths would probably ensue either from pressure, suffocation, or trampling. It is therefore useless and misleading to wholly blame the surroundings of a panic-stricken crowd for the commotion which occurs in it, or for the consequences which ensue when silly, or, for the moment, senseless, people rush madly on their own destruction. The real fault is in the average mind; and, unfortunately, the very dwelling upon these "accidents," and the word-picture painting of their horrors in the newspapers, inevitable and necessary as publicity must be deemed, are evils inasmuch as they aggravate the susceptibility to panic which, above all things, it is most desirable to reduce and relieve. If only reason could be retained, and weak-minded and excitable folk would not go stark raving mad the instant some fool or knave cries "Fire" in a public assembly, all would be well. No punishment is too great for the wanton scoundrel who raises a needless terror. He is worse than a murderer. Hanging is too good for such a criminal. No words can adequately express the indignation that must be felt against an offender of this class; but the fatuous and contemptible excitability of the majority of sight-seers is scarcely less abhorrent to common sense and humanity. Is life so very precious, is death—the inevitable—so appalling, that the poor mean fool must lose his wits and forget everything but his miserable lien on existence the moment this right of property seems to be assailed? If half a dozen savage dogs, or a few stalwart men with cart-whips, could be let loose on a panic-stricken assembly, the best possible treatment would be adopted. This is how the shrieking multitude ought to be reduced to order. We begin to think stern reproach should take the place of compassion for the victims of panic. Harm has been done, and is done, by laying too much stress on the need of special precautions. Let crowds be taught to take care of themselves. Let those who go to crowded assemblies of all sorts and conditions clearly understand that they go with their lives in their hands, and at their own sole risk; that they must shift for themselves, and if they behave like idiots they must take the consequences. This is the line of argument which strikes us as not merely politic but proper to the case. There is too much trusting to others, and to the provisions for safety which the managers of public assemblies ought to be compelled to make. It is nonsense, idle and worthless ignorance, to talk of the possibility of emptying a building in so many minutes or seconds. All such calculations are rendered useless and inapplicable the instant a panic occurs. A doorway out of which ten men might walk abreast would not suffice for the safety of even one hundred persons if they all rushed to it at once. The *reductio ad absurdum* is made by almost every "accident." The wider the exit the greater the rush, and the greater the rush the greater the accident, without regard to the structure or the way of exit. If a thousand persons can be quietly got out of any building in two minutes, the whole thousand will be jammed together in trying to get out in half the proper time. It is the madness that causes the calamity, not the limitation of the means of exit, provided always that these are fairly adequate. Something must be done to secure immunity from panics, and still more needs to be done to induce or compel persons to act as sane creatures instead of lunatics in the face of danger. We would urge this subject on the consideration of members of our profession and the public generally. Lectures on the folly of panic might with advantage be delivered from time to time, and it would be well if a serious attempt were made in every city, town, and populous district to discipline crowds and to inculcate the great lesson of safety, which consists in the experience that cowardly craziness in the presence of real or supposed danger is alike discreditable to men, to women, and even to little children, who ought to be taught betimes that all *must* die, and that to run madly away from death is to surrender the claim to live, and to show that the gift of life has been unworthily bestowed, and is unmerited.

PEPTONISATION.

AN important contribution to the physiology of albumens has recently appeared from the pen of Herr Chandelon. It is well known that peroxide of hydrogen is decomposed with the evolution of oxygen in the presence of fibrin and organised tissue as well as of several metals and oxides; and it has generally been stated that this dissociation takes place without the albuminoids or metals undergoing any change. No evolution of oxygen occurs when other organic substances are brought into contact with the peroxide of hydrogen. Herr Chandelon suspected that in this latter case there might be a reaction, though it was not perceptible because the oxygen was used up in oxidising the organic matter. In order to test this suspicion, egg albumen was suspended in water and exposed to the action of nascent peroxide of hydrogen. At first sight there was no result, for neither leucin nor tyrosin was detected. Nevertheless, it was observed that the albumen had undergone some change, in that the volume of the precipitate produced by boiling the mixture gradually diminished, whilst the liquid after

separation of the coagulum by filtration gave upon treatment with alcohol a copious precipitate, which, upon being redissolved in water, gave all the reactions of an albuminoid substance. Further investigation left no doubt that the albumen had, partly at least, been converted into peptone; it was therefore of interest to study the reaction more closely, to isolate and identify the intermediate products. Herr Chandelon found that peroxide of hydrogen in the nascent state peptonises egg albumen, and peptonisation may be considered a phenomenon of hydration—an opinion that is supported by the formation of peptone from albumen by reagents capable of fixing water, such as dilute acids, alkalies, &c., and the reconversion of peptone into albumen by a dehydrating material like acetic anhydride. It is suggested that the albumen (anhydride) gives up an atom of oxygen to the peroxide (H_2O_2), just as oxide of silver does, and that the two groups that had been united by the oxygen then combine with two hydroxyls. The conversion takes place by the same process as in digestion with peptic ferments. The author puts forward the hypothesis that the digestive ferments promote digestion by the production of peroxide of hydrogen. These results appear to throw light upon some unexplained phenomena met with by M. Béchamp in his investigation on the constitution of albuminoids, and are in accord with the behaviour of the papaine ferment observed by M. Wurtz. It would be interesting to know if peptones so formed are devoid of the bitterness which is an objection in those formed under the influence of ordinary ferments.

THE LATE DR. RABBETH.

WE are glad to see that a meeting to perpetuate the memory of Dr. Rabbeth has been held at King's College. At King's College School, in the medical department of the college, and in the hospital, Dr. Rabbeth received his education and training; at the University of London he took his degree; and at the Royal Free Hospital he was in charge of the wards when he performed the heroic deed which caused his death. It is only meet, therefore, that the representatives of these various bodies should join his colleagues, fellow-students, and relatives in commemorating the brave manner in which he did his duty—and died. The committee which has been formed, under the presidency of the Archbishop of Canterbury, is so large and comprehensive that no distrust can be entertained as to the thoroughly loyal manner in which any funds entrusted to it will be administered. We feel sure that the profession and the public will not only be glad to subscribe willingly, and thus testify their admiration for so noble a self-sacrifice, but will be also thankful for having the means pointed out by which practical good to the sick poor may be associated with the memory of a lost medical hero.

DEADLY TOYS.

WE have again to call attention to the extremely dangerous nature of many of the playthings put into the hands of children. A boy aged five has recently died at St. Thomas's Hospital from injuries caused by swallowing a "puff-dart." While amusing himself with the toy, the child suddenly drew in his breath and the needle of the "puff-dart" passed into the air passages. The boy died at the end of a month with symptoms of dyspnœa. At the post-mortem examination, the needle, with the worsted attached, was found to be lodged in the lower part of the trachea and firmly wedged in the left bronchus; there was also very intense suppurative lobular pneumonia affecting the lower lobe of the left lung. This case adds one more to the long list of fatal accidents caused by dangerous toys. It is to be hoped that ere long the Legislature may be induced to deal with the subject.

SIR WILLIAM MURE MUIR, K.C.B., M.D.

ON Saturday last the life-size portrait in oils of the above-named lately retired eminent chief of the Army Medical Department was presented to Lady Muir, in the name of the officers of the medical staff serving in all parts of the British Empire. Owing to the much-regretted serious illness of Sir William Muir, it was found necessary to dispense with the deputation which it was intended should formally present the portrait, and the proceedings were therefore strictly private. The portrait, a three-quarter length, by Mr. W. R. Symonds, whose numerous exhibits at the Royal Academy have been so justly admired, is a most striking likeness, and elicited warm commendations as a work of art, not only from the recipient, but also from all who had seen it at Mr. Symonds' studio. The original picture (of which this portrait is a replica) is by the same artist, and adorns the walls of the medical staff mess at Netley, forming there not only a permanent memorial of Sir William Muir, but also a lasting testimony of the high appreciation by the officers of the medical staff of the pre-eminent services rendered by him to the Army Medical Department.

"SUSPECTED POISONING."

WITHIN the last few weeks Dr. Danford Thomas has had to adjourn inquests for the purpose of obtaining further evidence as to the cause of death in three cases of suspected poisoning. In the first of these, a woman named Flagg, aged sixty-six, died whilst under the treatment of Dr. W. H. Day. This gentleman was prepared to give a death certificate, but a sister of the deceased had suspicions, not well grounded as it transpired, that poison might have been administered. At the post-mortem examination the kidneys were found to be granular and wasted. There was double hydrothorax. The heart was greatly hypertrophied and dilated, and the pericardium was adherent to it. The stomach, which was empty, presented no signs of irritation or of corrosion. The persistent vomiting from which the deceased suffered thus received a sufficient explanation. In the second case, Sarah Hickmott, aged twenty-six, died after a few days' illness, and immediately after she had aborted, although there had been no excessive hæmorrhage. Mr. Hunter of Clerkenwell was sent for, and on his arrival found the woman dead. The coroner ordered an inquiry on the information that criminal abortion might have been procured by the administration of some drug. An exhaustive chemical analysis of the contents of the stomach and of some powders and mixtures taken from the house of the deceased was made, but with negative results. The post-mortem evidence was unsatisfactory on account of the advanced state of decomposition of the organs. In fact, it was stated that the features were scarcely recognisable thirty-six hours after death. Unfortunately no urine was obtained, and so the question of albuminuria complicating pregnancy remained unsolved. That this explanation was probably the correct one, however, is supported by the fact that the deceased had frequently complained of severe and persistent headache. It may be noted that the liver and other organs were so soft that poisoning by phosphorus suggested itself. The analysis proved, however, that this was not the case. The difficulty in arriving at a conclusion was increased by the death having taken place without anyone witnessing it. In the third instance, Helen Dickenson, aged thirty, was found in bed quite insensible, and in a dying condition. It was surmised that she might have committed suicide. At the first autopsy certain signs were observed in the stomach and mouth which the medical man who conducted it held to be consistent with irritant poisoning. He also found three dark round bodies in the stomach which in external appear-

ance resembled pills, and for which, in fact, he mistook them. A further examination led to the conclusion that the death must have been due to asphyxia; that there were no signs of organic disease of the internal organs sufficient to account for the fatal issue; and, lastly, that the supposed pills were grocer's currants. An analysis of the contents of the stomach showed the absence of cyanide of potassium, the only poison likely to account for death under all the known circumstances. It was elicited that the deceased had been treated for "fainting fits." There seems little reason to doubt that these "fainting fits" were attacks of petit mal, and that death occurred on the accession of the first seizure with clonic spasms.

ANTISEPTIC TREATMENT OF WOUNDS BY DRY AND INFREQUENT DRESSINGS.

DR. FRANCIS J. SHEPHERD has gone far towards reconciling apparently conflicting systems of wound treatment in the title which he has selected for a clinical lecture at the Montreal General Hospital, just reprinted from the *Canada Medical and Surgical Journal*. Rendering full justice to Sir Joseph Lister for having revolutionised wound treatment and rendered operations, once formidable and dangerous, comparatively safe, Dr. Shepherd announces himself a strong advocate for the system of dry and infrequent dressings of wounds advocated by Mr. Sampson Gamgee of Birmingham. The title of his lecture is justified by the use he makes of mercuric bichloride (1 in 1000), carbolic acid (1 in 20), for cleansing sponges, and carbolised catgut for ligatures and sutures. He sprinkles iodoform on his absorbent pads, and immobilises by means of pasteboard splints, made pliable by dipping in hot water. Dr. Shepherd gives an account of seventeen amputations without a death, and of eighty-six other operations with two deaths—one after excision of the tongue, from gangrene of the lung following erysipelas, and one from shock after ovariotomy. "Many of you," remarks the Canadian surgeon to his clinical class, "after you receive your degrees, will practise in country or other places where it will be difficult or impossible to carry out the elaborate ritual of Listerism in all its entirety. In dry dressing, however, you have a method of wound treatment that may be employed with as much success, and the materials for which may be carried in your breast pocket."

"LANCING THE GUMS."

A GREAT surprise gradually made itself apparent on Monday last to the Fellows of the Medical Society of London, when it became clear that the whole of the evening would be devoted to the discussion of so apparently trivial a subject as "lancing the gums." Elsewhere our readers may gather the opinions of the several gentlemen who joined in the debate. The Society was certainly indebted to Mr. Edmund Owen for the opening of so successful a discussion. The subject appears to us to be one eminently fitted for treatment by the logical method. And, first, what are the facts? At the outset it will be seen that we are anything but sure of our ground. No one will question the statement that some infants have ceased to cry and have returned to a quiet state of mind and body after the application of the gum lancet. That proposition is beyond dispute. But who can tell how many infants have continued to suffer after the free use of the lancet to the gums? It was, has been, and no doubt will be, asserted that convulsions, diarrhœa, and bronchitis are at times caused by the irritation of dentition. We do not deny that such may be the case. Of the fact that diarrhœa does occur during the period of the first dentition there is of course no doubt; and the same may be said of many other diseases. Granting the association to be so frequent that it calls for special notice, what views may be held on the connexion? The diarrhœa *may* cause the irritation about the gums and teeth; the irritation of the latter *may* set up the diarrhœa; or both diarrhœa and dental disturbance *may* be dependent upon some cause in the immediate background. Such are the possibilities. All the hypotheses may be right, and any particular instance may be best explained by one or other supposition.

THE SURGICAL STAFF OF THE HUDDERSFIELD INFIRMARY.

CONSIDERABLE dissatisfaction has been expressed by the honorary surgical staff of the Huddersfield Infirmary at the action of the Monthly Board of that institution in deciding, in addition to filling up the vacancy caused by the recent death of Mr. Brewer, upon the election of another full surgeon. Considering that the average number of in-patients during last year was eighty-two, and the total number of out-patients 5494, and that to meet the wants of these patients a staff of two physicians, five surgeons, and three fully qualified house-surgeons exists, we are of opinion that, judging from the facts as they have been represented to us, there is good ground for the dissatisfaction to which we have alluded. It is well known that persons who are fully able to pay the ordinary fee for professional advice are in the habit of procuring gratuitous medical relief at the infirmary, and assuredly an increase in the staff will not tend to check this abuse; again, by lessening the number of cases under each surgeon's care this proposed increase will diminish his chance of gaining experience, and thus tend to impair the ultimate efficiency of the institution. The honorary staff, with a few of the governors, have summoned a formal meeting of the subscribers to consider the action of the Board in thus slighting and ignoring the opinion and wishes of the professional staff, and we trust that as the result of the discussion wiser counsels may prevail.

STRAIGHTENING CROOKED NOSES.

DR. JOHN B. ROBERTS recently showed a patient to the Philadelphia County Medical Society upon whom he had practised a new operation for straightening a deformed nose. In this instance the end of the nose was bent over to the right. Dr. Roberts first passed a scalpel into the right nasal fossa, and divided the cartilaginous septum from above downwards and forwards; he then transfixed the upper segment of the septum with a pin, also passed in from the right nostril, bent it over into the straight line, and fixed its point far back in the left side of the cartilaginous septum. The left lateral cartilage was separated from the bone by subcutaneous section, and pinned over in a similar fashion. The pins were to be left in place for three weeks. Dr. Roberts stated that this operation had yielded him good results, and it had the great advantage of avoiding the use of cumbrous or unsightly apparatus.

DISORDERS MISTAKEN FOR HYDROPHOBIA.

A PAPER which was read before the Medical Society of the State of Pennsylvania during the present year is worthy of notice on at least two good grounds. The author, Dr. Dulles, has succeeded in giving a wide application to the group of symptoms which goes by the name of hydrophobia. It will perhaps be readily conceded that many diseases are characterised by the same symptoms though the mode of arrangement of the symptoms unquestionably varies widely. To recognise in a thorough manner the fact that medicine has its alphabet of symptoms, and that any disease must be constructed of the letters in this alphabet, is more than half the battle on the high road to a scientific understanding of medicine. Let the full extent of these propositions be under-

stood, and dogmatism in scientific medicine must vanish. Admit, for example, that a disturbance of a transitory nature in the alimentary canal may give rise to the same and an equal number of symptoms as a cerebral tumour, and we believe that the goal of open-mindedness is reached. We do not assert that a differential diagnosis is impossible in the majority of cases; but that is not the question. What we should like to see more often than is the custom is the discussion of the diagnosis of cases on the basis of their elemental facts. This thorough dissection of symptoms has virtually been performed by Dr. Dulles in regard to hydrophobia. Another point of the paper which is deserving of commendation is the wealth of reference to the literature of rabies. There are, in this essay, no less than 300 apparently accurate references bearing directly on the subject.

A SCANDAL IN BERLIN UNIVERSITY.

PHILOSOPHY not seldom forgets to don the worldly robe of social tact. A neat little specimen of this general truth is now being exhibited to the Berlin University, and indirectly to the world at large. Everyone familiar with science has heard the name of Du Bois Reymond, and nobody knows Dr. Schweninger. This sentence probably contains the pith and marrow of the pretty little scandal which is going the round of the German press. Dr. Schweninger enjoys the proud distinction of having reduced the corpulence of the Chancellor of Germany; for this merit he was made an Extraordinary Professor in the University of Berlin, where Du Bois Reymond has long lived in fame. The honour done to the reducer of the Chancellor's growing obesity did not greatly please the reducer's new colleagues. It appears that Dr. Schweninger left cards the other day at the residence of the Rector Magnificus, who showed his sense of the compliment thus paid him by returning them to their owner. A challenge was the result. Du Bois Reymond does not fight, and told his would-be opponent so. And thus a welcome subject for tattle has been furnished to the gossips by those who sit in academic furs and purple.

CRIME OR MADNESS.

WE are accustomed to see on the stage spectacles in which the villain of the piece is represented as wrecking a railway train by wilfully placing some obstruction on the rails. It is a serious question whether such scenes, "thrilling" as they may be, ought to be enacted for the public amusement. Certain forms of mental disease are known to be mimetic, and there seems to be reason to suppose that in one case at least a morbid mind has been so influenced as to perpetrate what, if it were not madness, would be an atrocious crime. Ex-captain Charles Newton Biggs is clearly a person who ought to be taken care of for more than one year, though that may prove long enough to develop and demonstrate his insanity. If he was not a lunatic, he would be a criminal of the worst possible class, much too dangerous to be again trusted at large.

FORGED FOREIGN DEGREES.

IT is an unpleasant fact that no less than two instances of an attempt to palm off forged Degrees of medicine of Vienna on the Faculty of Physicians and Surgeons of Glasgow were brought under the notice of the Medical Council at its recent meeting. These cases were referred to the Executive Committee for preparation for the consideration of the Council at its next meeting, and must therefore be considered *sub judice*. It is gratifying to know that in neither case was the culprit a registered medical man, though in one case he was a registered medical student. Henceforth we shall have to be on our guard against forged degrees as well as against bogus ones.

TYPHUS IN MANCHESTER.

AT a meeting of the Board of Guardians of the Chorlton Union attention was drawn to the prevalence of typhus in Manchester, part of the city being within the Chorlton Union. The disease commenced in August last, and since then thirty-four cases have been removed to the workhouse infectious wards, three have been sent to the Monsall Hospital, and five deaths have taken place. The disease still prevails, and a committee has been appointed to deal with the question of providing additional means of isolation. The outbreak has appeard in some of the worst localities in Chorlton-on-Medlock; the property being one which is generally condemned as a hot-bed of disease, and as unfit for human habitation. Indeed, pressure is about to be brought to bear upon the Manchester Corporation to purchase it and to convert it into an open playground, a plan which would afford a breathing space much needed in that portion of the city. It is to be hoped that very stringent measures of isolation, cleansing, and disinfection, will be adopted by the sanitary authority to get rid of the disease at the earliest possible moment, for the appearance of typhus at the onset of the winter in some of the worst portions of such a city as Manchester cannot be regarded without serious apprehension. Fortunately for the city the system of compulsory notification is in force.

IMPORTATION OF RAGS.

THE Local Government Board have extended the order forbidding the importation of rags from France and Italy until the close of the present year. The order forbidding the entrance of rags from Spain has been allowed to lapse. Rag importers are complaining greatly of the unequal working of these orders: for instance, in London the medical officer of health is carrying them out very strictly, no rags having been admitted for some time; while at other ports, notably Southampton, rags are freely admitted. Within the last fortnight no less than five or six consignments have been brought from St. Malo and Havre by the steamers of the London and South-Western Railway. Whatever may be the value of these orders from a public health point of view, it is certainly not right that they should be allowed to encourage trade at one port to the obvious injury of another. Naturally enough, the rag trade is slowly leaving London for Southampton.

PACINI'S MANUSCRIPTS.

THE Italian Education Minister is negotiating with Professor Pacini's heirs for the purchase of that pathologist's numerous and very important manuscripts. These include a diary kept by Pacini during several years of diligent experimental research. In the latter will be found a report, with almost daily entries, of cases during the cholera epidemic in Florence in 1855. The drawings of microbes were made with his own hand, after observations with a powerful microscope expressly constructed for the work.

FLOGGING GARROTERS.

IT would be a false and cruel philanthropy which could complain of the punishment administered by flogging to a man in gaol, on Saturday, for garroting with robbery. Hard labour is for a powerful man like the culprit in question a not excessive use of the strength which he possesses. Prison fare is sufficiently liberal to afford nourishment probably more wholesome, and more regularly obtained, than that which his habits out of gaol allow him to procure. It is somewhat difficult to see, therefore, how either of the latter penalties can act as a deterrent, though for a time it is necessarily a preventive, of

crime. The fear which the lash almost invariably awakens in offenders of this class, a fear proportionate to the pain of flogging, but in excess of any after-effects, is in itself a guarantee that we have always at hand at least one simple, effectual, and relatively safe protective against a most cowardly and dangerous form of assault.

"CYCLING."

IN our leader of last week on this question we drew attention to some of the more salient features of the controversy that has lately been carried on in these columns, and attempted to show what in our opinion were the possible and probable drawbacks and advantages of cycling as regards its influence on the maintenance of health in those who availed themselves of this mode of travelling. A letter, dated Oct. 27th, from Dr. Strahan, who strenuously opposes the practice, or rather excessive indulgence in it, deals with some of the facts bearing upon the occurrence and extent of "perineal pressure" and concussion of the spine. We have little to add to what has already been set forth. There can be no manner of doubt that evil consequences may ensue from indiscretion in this as in other pursuits of business and pleasure. Nevertheless, we maintain that it is quite within the reach of mechanical skill to fashion an instrument that shall minimise the danger arising from pressure on the urethra and jolting of the body. Moreover, it behoves us to consider the collective gain of the many while discussing the misfortunes of the few; and we hold that were cycling, even with its present attendant disadvantages, to be altogether discontinued, the public would be robbed of a means of usefulness and enjoyment that it would be difficult to replace.

TYPHOID FEVER IN SOUTH AUSTRALIA.

THE tenth report of the Central Board of Health of South Australia draws attention to the continued prevalence of typhoid fever in various parts of the colony. The cases of this disease appear to be spread over a wide area; and the Board, whilst fully recognising the importance of the discoveries which have been made by our central sanitary authority in England as to the association of this disease with varying, and often obscure, conditions of excremental poisoning, are obliged to admit that it has been impossible hitherto to trace the cases to their origin. It is, however, admitted that the investigations of the sort required cannot be satisfactory except as the result of long and patient work on the part of those employed, and it is clear that no such work has yet been carried out. A system of investigation has, however, now been commenced through the agency of officers of health and others, and it is hoped that important information may be forthcoming. There seems still need for some such skilled supervision of the work as is carried out in this country by the staff of medical inspectors whose reports are evidently valued in the colony.

FIRST "BOWMAN LECTURE."

THE first "Bowman Lecture" will be delivered at the meeting of the Ophthalmological Society on Thursday, the 13th inst., at 11, Chandos-street, at 9 P.M., by Mr. Jonathan Hutchinson, F.R.S. The subject is to be "Diseases of the Eye which appear to be in connexion with Gout."

THE APOTHECARIES' SOCIETY OF LONDON.

THE Court of Assistants of the Society, on the recommendation of, and in conjunction with, the Court of Examiners, has decided that on and after January 8th, 1885, it will not grant its licence to anyone who has not passed an examination in Surgery either at the Hall or elsewhere.

DEATH OF THE RIGHT HON. HENRY FAWCETT.

THE death is announced of the Right Hon. Henry Fawcett, the Postmaster-General, which took place on the 6th inst., from congestion of the lungs. The right hon. gentleman was in his fifty-first year.

VICTORIA UNIVERSITY.

AT a meeting held on Wednesday, it was resolved that the Court, having considered a report from the Council, accepts the application of University College, Liverpool, to be admitted as a college in the University.

MR. VANDERBILT having recently made a donation of a considerable sum to the College of Physicians and Surgeons of New York, land has been selected on which to build a new home for the College. The site, which is a little over 350 feet in length and 200 feet in width, is in close proximity to the Roosevelt Hospital. Access to the other hospitals in the city is afforded by the West Side Elevated and the Belt Surface Railways. The extent of land now in possession of the College is much more than is needed for immediate building purposes, but it is reasonable to suppose that requirements which are not foreseen to-day will in the course of time arise, and the College will then be able to add new departments or increase the old ones, as may be required.

THE trial of Fleet and others *versus* the Managers of the Metropolitan Asylum District is now in progress, and even in its earliest stages it is evident that some very complicated questions, such as the meaning which properly attaches to the word "convalescent," and the admissiblity of evidence as to the influence of other small-pox hospitals, are certain to arise. It is to be hoped that some authoritative decision will be come to which will place the question of the isolation of small-pox cases on a footing which, whilst satisfactory to the interests of those attacked, will also have regard to those of the surrounding community.

ON the 30th ult. a deputation waited upon the St. Pancras Board of Guardians to protest against the project of the Metropolitan Asylums Board to pull down the various pavilions comprising the present small-pox hospital at Hampstead and the proposal to erect a large and permanent establishment of a similar description. The guardians unanimously adopted a resolution calling upon the members representing the parish at the Asylums Board to use all the influence in their power with the managers to effect the entire removal of the hospital to a more suitable site.

AT the Leeds School of Medicine, during the present winter session, Dr. Clifford Allbutt, Mr. Wheelhouse, and Mr. T. Pridgin Teale will each deliver three clinical lectures. The above-named gentlemen have relinquished active service in the Leeds Medical School and the Leeds Infirmary, but by giving these lectures, at which the attendance of medical practitioners as well as students is invited, they show their continued interest in the school under its new conditions.

AT the last weekly meeting of the London School Board, the discussion on the over-pressure question was resumed, with the object of deciding whether a special committee should be appointed to inquire into the allegations of Dr. Crichton Browne, or whether the matter should be referred to the School Management Committee. No decision was arrived at, and the discussion was again adjourned.

MR. EDWARD STANFORD, of Charing-cross, has just issued an excellent large scale map of the Nile from Dongola to Khartoum.

AN inquest was held on the 30th ult. at Guy's Hospital on the body of a man who was locked up by the police at 11 P.M. on the 26th ult. for being drunk and incapable, and who was discovered insensible in the cell at 4 A.M. on the 27th, dying before he could be got to the hospital. Medical evidence showed that death was due to fracture of the skull, and the jury returned a verdict of "accidental death."

WE hear with regret of the death of Mr. H. M. W. Macdonald, L.R.C.P. Edin., on the 3rd inst. It would seem that the deceased gentleman had resolved to inhale chloroform for the purpose of having a carious tooth extracted, and that during the operation the pulse ceased, and death ensued.

THE Professor of Chemistry at University College, Liverpool, reporting on three samples of the Windermere water forwarded to him, states that though hardly fit for drinking, yet there appears to be no reason why it should not be employed for household purposes in general.

A MEETING of the Association of Fellows of the Royal College of Surgeons will be held at the rooms of the Medical Society of London, Chandos-street, Cavendish-square, on Saturday, Nov. 8th, at 4 o'clock.

THE Right Hon. W. E. Forster, M.P. (late Lord Rector of the University), is to preside at the next dinner of the Aberdeen University Club, London, to be held at the Holborn Restaurant on Wednesday, November 19th.

DR. YELVERTON PEARSON has been appointed by Her Majesty, through the Lord Lieutenant, to the post of Professor of Materia Medica in the Queen's College, Cork.

DR. TOMMASI CRUDELI ON MALARIOUS COUNTRIES, AND THEIR RECLAMATION.

(*Concluded from page 798.*)

ATMOSPHERIC amelioration has also been effected in the new quarter of Rome, where, especially in the Quirinal and Esquiline, formerly subject to malaria, the buildings and the pavements have excluded the soil from contact with the air, which, however, evokes the malaria whenever such exclusion is interrupted by excavation. At best, therefore, this atmospheric amelioration is only suspensive, and possible only on land where building or pasturage or continuous submersion is practicable. Permanent atmospheric amelioration—that is, such modification of the composition of the malarious soil as would render it barren in respect of malaria while conserving its power of useful production—is a result which, as men of science, we must confess ourselves impotent to effect; while as practical hygienists we may admit it as probable that the combination of hydraulic amelioration with culture of the malarious soil has in some cases modified the composition of this latter so as to make it barren in respect of malaria. But we do not know how this has been brought about, nor can we reproduce it at will. The ameliorations effected in antiquity by centuries of drainage and cultivation combined were suspensive merely, because the moment the scene of operation was abandoned it relapsed into its previous malarious condition. The Campagna of Rome seemed reduced to permanent salubrity under the Antonines; but on the fall of the empire the malaria re-appeared, just as if centuries of cultivation had never been.

Indeed, no one can say *a priori* whether the cultivation of a malarious soil will render it salubrious or not. There are instances even where such cultivation augments the malaria. At first this always happens; the disturbance of the malarious soil with the plough or the spade throws an increased surface into contact with the air and so the poison develops. Often this first effect of cultivation lessens in time, and sometimes disappears. Not seldom it obstinately persists, cases having even occurred where cultivation has had to be abandonded in despair, and the soil hastily recoated with as compact a meadow covering as possible to make it tolerably inhabitable.

Still, it is well to try, on favourable opportunities, whether it is possible to augment the efficacy of hydraulic or of hydraulico-atmospheric improvement by means of cultivation. A thousand economic reasons counsel the trial though the issue be problematical. Not only courage to face the problem is necessary, however, but some assurance of its solubility, otherwise we are apt to find ourselves in a vicious circle; on the one hand, cultivation cannot be entered upon unless we can secure the uninterrupted presence of cultivators on the spot all the year round; on the other, the cultivators cannot remain on the spot during the hot season and live. There is but one way of escape from this dilemma—to wit, that of augmenting the specific resisting power of the human organism to the attacks of malaria.

Dr. Tommasi Crudeli has devoted assiduous labour in these latter years to find the means of promoting this resisting power. He does not believe that individual acclimatisation, in respect of malaria, is or has ever been possible. The infection is a progressive one, as indefinite in duration as that of syphilis, one attack sometimes sufficing to ruin the constitution for life. An acclimatisation, not individual, but collective—that is, the acclimatisation of a race—was possible in the past, when specific remedies against malarious infection were unknown, and even later, when the application of these remedies was very limited. The acclimatisation of a human race, then, happened by means of a natural selection (*cèrnita*), wrought by the malaria itself, which, in succeeding generations, carried away well nigh, without impediment, all those whose specific resisting power was weak, while sparing those whose resisting power was strong. The former, according to the Græco-Italian myth, were the human victims destined to pacify the demon who opposed their occupation of the territory in which it had reigned till then as absolute sovereign. The latter became the founders of the colonising race, in which, with every fresh generation, were produced new selections (*cèrnite*) useful for the social body, so that the collective resisting power of the race rose progressively. In our days such a selection may happen in human savage races (and it happens in the breeds of oxen and horses imported into malarious countries), but it has become impossible in human civilised races. Thanks to the specific remedies at our command, the use of which is so general, we preserve the lives of many whose specific resisting power is feeble, and who, after being cured, beget children who have even less than they; so that after a series of generations there is produced in malarious countries a physical deterioration of the human race instead of that useful selection (*cèrnita*) which took place in past centuries.

External nature cannot be counted on for augmenting the specific resisting power of human societies to attacks of malaria. Art must be resorted to—the daily exhibition of the salts of quinine, of the alkaline salicylates, of tincture of eucalyptus, having all had their turn. Dr. Tommasi Crudeli has found arsenious acid most efficacious, particularly as preventing recurrence of the fever. In 1880 he first employed it systematically in the Roman Campagna. Among its recommendations are—the longer duration of its antimalarial action, its low price, its beneficial influence on nutrition, and the facility with which it was taken, even by children. In the following year arsenic, in the solid form, was, at his instance, exhibited to a very large *clientèle*, including the tenants of farms and the *employés* of the Roman and South Italian railways, and at the close of 1883 the results have been these:—When the arsenic has been administered some weeks before the malaria season sets in, and when its administration has been continued regularly throughout this season, the human organism best resists the attacks of the fever. In some cases an absolute immunity, in others a relative immunity, from malaria was attained. These latter cases are sometimes attacked by the fever, but even in the worst localities it never becomes pernicious (*perniciosa*), and they get over it with a little quinine. Last year, for example, Dr. Ricchi experimented on seventy-eight individuals in the Bovino district where malaria is endemic.

He divided them into two sections, one only of which was subjected to the prophylactic treatment by means of arsenic. At the end of the febrile season it was found that while of the half consisting of those who had had no prophylactic treatment many suffered severely from malaria, thirty-six of those who had been under the course of arsenic remained entirely free from it, and the other three had had slight attacks, of which they cured themselves with a little quinine without calling in the physician at all.

These results are all the more encouraging, as the general health of those subjected to the course of arsenic is always greatly improved. Increase of weight and diminution of the anæmia so common in malarious countries are invariably found at the end of it. Prudence, however, prescribes an accurate graduation of the doses, commencing with two milligrammes a day for adults and guarding against taking the arsenic on an empty stomach. On the other hand, the dose may by degrees be augmented to eight, ten, and twelve milligrammes a day for adults when the locality is very malarious, so regulating its administration as not to produce an accumulation of arsenic in the stomach.

The true scourge of malarious countries, however, is not so much the outbreak of the acute fever as the chronic malarious infection; this it is which decimates the family, deteriorates the race, saps the sources of life, and produces a slow and progressive anæmia. This infection resists too often all the known remedies, and is even aggravated by the prolonged use of quinine, which is apt to prove a veritable poison for the vaso-motor system. A most efficacious, and at the same time easily procurable, remedy was announced three years ago by Dr. Maglieri, who had found it in traditional use in some Italian families. It is a decoction of lemon prepared by cutting the fresh fruit, rind included, into thin slices, and boiling these in three tumblers of water, until the volume of the water is reduced to one-third. Then this is passed through a thin cloth (muslin will do), while squeezing powerfully the residue of the lemon. After cooling for some hours, let it be drunk fasting. Among all the popular remedies for malaria fever this, says Dr. Tommasi Crudeli, is the most efficacious, and may be employed with advantage even in acute fevers. It seems, however, to have a specific action of great utility in chronic malaria infections which have resisted all remedies known to medicine. It has been tried on an extended scale, not only by Dr. Tommasi Crudeli, but by Dr. Pietro Cervello of Palermo, by Dr. Oreste Ferraresi of Rome, and by Dr. Giuseppe Mascagni of Arezzo, with the most gratifying results. It costs next to nothing—a very important consideration in Italy; it conquers the most stubborn fevers, and at the same time it restores to the patient his appetite, strengthens the whole nutritive process, and rapidly rehabilitates the system.

In no disease more than in malaria ought we to take account of popular experience. It is this which has rescued us from the "palustral prejudice" of the medical schools, and has taught us to extinguish malaria under our feet instead of wasting time on preventing its imagined importation. Popular experience, moreover, has shown that malaria rises from the soil into the atmosphere vertically only to a very limited altitude, so that by living, or at least sleeping, above this limit we may keep exempt from its influence. In the malarious districts of Greece and in the Pomptine Marshes of Italy the people during the malarial season bivouac at night on platforms propped on poles five or six metres high, and so escape attack. Here and there in the Roman Campagna houses are, with the same object, perched on the top of ancient tombs which have vertical walls. The American-Indians when they pass the night in malarious localities sling their hammocks to the highest trees they can find, and the engineers of the Panama railway built shanties for their workmen, also in trees, and so preserved them from the nocturnal malaria. We ought *a priori* to reject no useful remedy or precaution simply because it originated with the people. In the question of soil reclamation, it is essential to find a means accessible to all cultivators, of whatever age or condition, which is capable of overcoming the chronic infections of malaria and of removing its grave effects. Science not yet being in a position to guide us to the discovery of such an agent, we are forced to collect with all due care the facts which may conduce to the desired result by another way; and if the means thus indicated appear innocent we must put it zealously to the test, unimpeded by any false conception of the dignity of science.

THE PROGRESS OF CHOLERA.

THE satisfaction experienced by the very complete subsidence of cholera in the south of France, Italy, and in Spain is materially marred by the wider area over which the poison has spread itself during the past fortnight. At Yport, in Normandy, cases still arise; but apart from a rumour that in some village near Rouen a single death has occurred, there has been no diffusion of the disease. Nantes, however, in the adjoining province of Brittany, is now seriously attacked. Since October 24th there have been over thirty deaths there, and fresh cases are still arising. From the fact that the first known case occurred in an hotel, it is assumed that the outbreak was due to a distinct importation from the south. In Algiers cases are still occurring at Oran, and isolated attacks are also reported from the other extremity of the colony. This extension of the epidemic, with the onset of colder weather, by no means augurs favourably for the prospects next season; indeed, it will need an amount of energy which we almost despair of seeing exercised to get rid of all the foci of infection during the coming winter.

In view of this further diffusion of the disease fresh quarantine measures have been put into operation by various States, and the importation of rags into this country is still further prohibited until the end of the year. Amongst the places where stringent quarantine regulations have been freshly established is Gibraltar, and some surprise and indignation are expressed on the Continent that England, which professes to disbelieve in the efficacy of such measures, should countenance the imposition of so rigid a code in one of her own colonies.

LUNACY IN IRELAND.

THE inspectors of lunatic asylums in Ireland have recently issued their thirty-third annual report. On January 1st, 1884, there were in lunatic asylums and in workhouses 14,088 inmates, being an increase of 266 as compared with the preceding year. As regards district asylums alone, on the first day of this year there were 9542 insane persons, being an excess over that on a similar date in the preceding year. The discharged cured numbered 1079, relieved 372, unimproved 88, deaths 892, and escapes 2. These contributed a gross total of 2433, including the increase of 271 above referred to. The proportion under treatment in district asylums on the 1st of January last was about 1 to every 540 of the general population, males exceeding females by nearly 18 per cent. The proportion of cures to admissions is about 40 per cent., but the daily average under treatment 11 per cent. The mortality (892) was not beyond the general average. The district asylums during the past year were especially exempt from epidemics and diseases of an acute character, death in the vast majority of cases being referable to advanced age or to a pre-existing debility of constitution. The income amounted to £252,560, which included £4750 from paying patients and £5974 from garden and farm produce, while the expenditure was £209,267. The average outlay per head for the year was £22 16*s.* 5*d.* The inspectors, while bearing testimony to the good behaviour of the attendants in public asylums, regard the present remuneration of these subordinates as totally inadequate, considering the duties they have to perform. Practically speaking, the result of inadequate wages is unsatisfactory. Attendants soon become discontented, leave the service, and their places are filled by persons often quite uneducated, and who in turn on acquiring some experience seek a like engagement wherever they can obtain better pay. No doubt a retiring pension is recognised at the end of a certain number of years, but the scale on which it is calculated is so uncertain that few remain to benefit by it. The mentally afflicted in union workhouses amounted to 3726, an increase of fifteen, all being hopeless cases, comprising epileptics, congenital idiots, or persons utterly demented for a considerable period and advanced in years. Occasionally it has become necessary to remove chronic patients from workhouses to district asylums on their becoming violent or evincing dangerous tendencies; but, for the most part, on the subsidence of excitement, they are sent back, otherwise the asylums would speedily become congested, to the exclusion of urgent or curable cases.

FRENCH HEALTH RESORTS.

(From our Paris Correspondent.)

LA BOURBOULE; CLERMONT; VICHY; HAUTERIVE.

LA BOURBOULE being a comparatively new spa, I wished to consult some of the most recent works giving a description of the place before visiting it in person. "La Bourboule actuelle," a small treatise by Dr. Ad. Nicolas, rendered me great assistance, and I was obligingly conducted over the place by this *confrère*, who is one of the physicians of the place. From his book I learned that the origin of the term Bourboule is not, as is generally supposed, owing to the locality being muddy, but it is derived from the ancient word "borbola," which signifies "eau bouillante" or boiling water. From Mont Dore the road to La Bourboule follows the tortuous course of the Dordogne, and the place may be reached on horseback, diligence, or carriage in a little more than an hour. It is about four miles from Mont Dore and is situated in a valley at the foot of a granite rock which completely shelters it from the north and westerly winds. The valley of La Bourboule presents different aspects according as one reaches it from Mont Dore or from the plains. On arriving at the top of the valley from Mont Dore the traveller beholds before him a beautiful landscape. The valley, in the form of a spacious amphitheatre, is bounded on the north and west by mountains, the slopes of which are covered with forests of pine and beech. The town itself does not look very old, as most of the hotels and villas are of recent construction. La Bourboule is a valley compared with the neighbouring mountains, but a plateau of the second order compared with the plains. Its altitude is about 2776 feet, and its climate, compared with Mont Dore, is mild and uniform; so much so that it has been recommended as a safe sanatorium for phthisical patients in July, August, and September, as it has not the inconveniences of the too rarefied air of the mountains nor the damp windy climate of the lower valleys. There are two bathing establishments in the place, and the waters are described as being "hyperthermal" and "athermal." The baths are fitted up with all the modern appliances of hydrotherapy, and may well compare with any similar watering-place in Europe for their swimming-baths, salles d'inhalations, douches oculaires, nasales, auriculaires, pharyngiennes, anales, vaginales, &c. The temperature of the waters varies according to the height or distance of the springs (from 82° to 140° F.), and one may have a warm bath in these establishments without the aid of artificial heat. Besides the salles d'inhalations, which are used in common by a certain number of patients at a time, as at Mont Dore, arrangements have been made for the more fastidious to have their inhalations in their bathing-cabins, and by a rather ingenious process a spray is produced, so that they can have the benefit of the inhalation and bath at the same time. This mode of treatment is not open to the objection referred to in my letter of Sept. 6th, as regards the risks of infection or those resulting from the high temperature to which the patients are exposed at Mont Dore. The waters of La Bourboule are obtained from five different springs. Their composition is nearly all the same, but varying only in the degree of temperature and the proportion of the different elements of which they are composed. According to the latest analyses, they are described as being eminently arsenical, containing as much as 27 milligrammes of arsenic to the litre. They also contain a large proportion of the various chloride and bicarbonate salts, and a certain quantity of carbonic acid gas held in solution. As at most of the spas, the waters here are employed externally as well as internally, and are found useful in all cases in which arsenic and the above salts are indicated, such as general debility, from whatever cause, the various manifestations of scrofula, diseases of the skin and bones, affections of the respiratory organs, asthma, diabetes, intermittent fevers, &c. Rheumatic patients and delicate children are also benefited by these waters, and so are women suffering from chronic affections of the womb. Although the season officially begins in May, it is in July and August that the place is most frequented, and it extends even to the end of September, during which period the weather is most enjoyable. The treatment lasts from fifteen to forty days, according to the nature of the malady, and should be continued for about a month after returning home, and repeated at certain intervals twice or thrice during the year for periods ranging from twenty to thirty-five days each time. This is easily done with these waters, as they keep well in bottles without undergoing any alteration or losing any of their distinctive properties. The dose of the bottled waters is one to two half tumblers a day to begin with, and this should be gradually increased to two tumblers—never more—in the twenty-four hours. The same precautions are necessary during the use of these waters as are required in the administration of the pharmaceutical preparations of arsenic.

Before leaving Auvergne I shall say a few words about Clermont, which, though not usually resorted to as a watering-place, deserves some notice here. This town, which is also called Clermont Ferrand, is the capital of the department of the Puy-de-Dôme, and is situated seventy-eight miles west of Lyons and one mile and a half from Royat. It contains no less than fifteen mineral springs, which, according to the French nomenclature, belong to the class of chloro-bicarbonatées mixtes—that is to say, they contain a much larger proportion of lime and soda salts than the waters designated "chloro-bicarbonatées simples." It would, to my mind, be more intelligible to distinguish them by the affixes "strong" and "weak." These waters not only contain the bicarbonates of soda and of lime, but they also contain a fair proportion of the bicarbonate of iron, on which account they are found useful for anæmic, scrofulous, and rickety subjects; but from a deep-rooted prejudice they are seldom employed, and the medical men of the place have great difficulty in overcoming the objection which arises from the waters of some of the springs being utilised for the petrifaction of different objects for ornamental purposes, which are familiar to travellers, and which constitute a very important part of the industry of the place. I may, however, here observe that the term petrifaction is evidently a misnomer, as the objects in question are simply covered by a layer of calcareous matter, which is effected by allowing the water from certain of these springs to flow over them. It is more properly speaking a process of crystallisation, and the layers thus produced are as white and almost as hard as marble. In fact, the process is similar to what takes place in the manufacture of plaster-of-Paris splints. I have seen bunches of grapes, fish, &c., covered over in this way, and it struck me that the process may be of service in preserving fruit, and almost any other substance. By parity of reasoning, analogous effects are supposed by the vulgar to take place in those who drink the waters, in which case concretions would be formed in the intestines and in the bladder. Moreover, the town being within easy distance of Royat, the Clermontese prefer going to the latter, not only to drink its waters, but also to enjoy an agreeable walk.

Vichy is so well known that a description of the place would seem almost superfluous. It is certainly the most important and the most fashionable spa in France, the average number of visitors to it being about 40,000 a year. Vichy is situated on the right bank of the Allier in a large valley, surrounded by hills covered with a profusion of fruit trees and vineyards. It is 250 miles south-east of Paris, and its altitude is stated to be 880 feet; the air is temperate and pure. It is divided into the old and the new towns, Vichy-la-Ville and Vichy-les-Bains. The old town is picturesque, and it is evident from the Roman road and the ruins of olden times that Vichy was one of the foremost among the "aquæ calidæ" of the Romans. Vichy contains thirteen springs, which are used both for drinking and bathing. Eight of these belong to the State, and the other five are private property. A list of the springs with their composition will be found in a work by Dr. L. Grellety, entitled "Vichy-Cusset et leurs Eaux Minérales," and which is the most recent on the subject; but I may here give the principal: Source Chomel, Grande-Grille, Hôpital, which are thermal; Célestins, Hauterive, Lardy, Dubois, which are athermal. The waters of these springs are alkaline, the bicarbonate of soda and free carbonic acid forming the principal ingredients. They also contain small quantities of the bicarbonate of potash and magnesia with the arseniate of soda, all in varying proportions in the different springs. They are also divided, as has just been seen, into thermal and athermal, the temperature of the water ranging from 131° F. down to 59° F., the Source Chomel representing the former, and that of Dubois the latter. The hot or thermal waters spring naturally from the bowels of the earth, while the cold or athermal springs are produced by artificial boring. The

Grande-Grille is the most frequented, particularly by those coming from warm climates, as the waters of this spring are reputed to cure affections of the liver and spleen. Next in popularity is the Hôpital, and then comes the Célestins, the former for derangements of the digestive system, and the latter for those of the urinary organs. They are also specially recommended for gout, diabetes, and albuminuria. But although certain springs are reputed to be more suitable for some cases than others, yet Dr. Grellety, one of the physicians of the place, assured me that his personal experience had shown him that the choice of a spring is frequently a mere arbitrary measure, and the result of routine or fashion, for which the local physicians are somewhat to blame. Without wishing to deny that each spring has its own individuality, and possesses properties peculiar to itself, yet the chemical composition is so similar in them all, varying only in the temperature and in the proportion of the ingredients, that it struck me the distinctive lines of the therapeutic action of the different springs were too finely drawn, and that there was a great tendency to routine and refined systemisation. In this view I was fully borne out by Dr. Grellety, who said that a patient coming to a spa ought to place himself entirely in the hands of a local physician, as he alone can guide him in the choice of the water he is to make use of. The point particularly to be attended to was not so much the composition as the temperature of the water to be drunk; for while a patient could with a certain degree of impunity drink the water from a cold spring, he could not for any length of time tolerate that from a hot one.

Cusset is an old town a little more than two miles from Vichy, and from its proximity is considered a branch of the latter. It is resorted to as a promenade, or when the town of Vichy is overcrowded. The springs are athermal and highly mineralised.

Hauterive is looked upon as another branch of Vichy, though it is about four miles distant. Its waters are also athermal, and, like those of Cusset, may be preserved for a long time in bottles without undergoing any deterioration. The thermal springs, on the other hand, lose by travelling, not only in their chemico-physical composition, but in their therapeutic action. The local physicians are unanimous that for the waters of Vichy to be efficacious they must be drunk at the source itself. On the opposite bank of the Allier is to be seen a spring at Vesse, which goes by the designation of the "Source Intermittente," as the water spouts up only at certain intervals. The water is distinctly sulphurous, but I have never been able to ascertain why it is not utilised for medicinal purposes. It is preserved as a natural curiosity, and shown to visitors for twenty-five centimes each. The spouting takes place about once in the twenty-four hours; and by studying the time it takes for the water to be drawn in, the proprietors can, with the aid of other signs, predict within half an hour when the next spouting will take place, a notice of which is daily posted up at the casino and at the principal bathing establishment at Vichy. Vichy is almost yearly extending its boundaries, and it is expected will soon form one with the establishment at Cusset. It contains upwards of 400 bath-rooms, 56 douches, and 2 swimming baths. 3000 is the average daily number of bathers in the month of July; but, as at all the other health and pleasure resorts of France, the tourists and invalids this year have been almost exclusively natives, owing to the cholera scare. The season lasts from the middle of May to the end of September, and the average duration of the cure is three weeks. The treatment, being principally internal, may be carried out at any time of the year. It should on no account be abruptly stopped, but should be continued at intervals for some time after leaving the spa. The period most unfavourable for drinking the waters is during the greatest heat of the weather (July and August), as then the waters are not so well borne, diarrhœa and congestive phenomena being often induced. Like all the watering-places of France, Vichy claims to have been frequented since the time of the Gauls and Romans, who, besides being great warriors, seemed to attach greater importance to bathing than their descendants, if one may judge from the number of remains of bathing establishments which are to be seen to this day in various parts of the country. Paris itself possesses a very good specimen in the Palais des Thermes, at the Museum of the Hôtel de Cluny.

Paris, Sept. 22rd.

THE late Francis P. Hurd, of Wakefield, Mass., bequeathed $10,000 to the Massachusetts General Hospital.

NOTES FROM ABROAD.

THE first number of a new medical serial, *Boletin de Medicina*, appeared last July at Santiago, Chili.

Professor Pacini's manuscripts have been purchased from his heirs by the Italian Minister of Public Instruction.

The widow of Professor G. B. Ercolani has presented his veterinary library to the municipality of Bologna, his native city. For rare manuscripts and books in the special subject, the collection is said to be unrivalled in the world.

The germ theory of phthisis has attained to such a position in the estimation of foreign physicians, that Professor G. Sée has just published, through Delahaye and Lecrosnier, a volume entitled "De la Phthisie Bacillaire des Poumons."

The police authorities of Berlin have just issued an order requiring all medical practitioners to notify at once to the Sanitary Commission any cases of diphtheria under their care. The ravages from this disease are steadily on the increase in Paris, but compulsory notification is not permitted under the French law.

The official statistics of cholera in Italy bring up the number of cases to October 20th to 21,519, with 11,563 deaths. Genoa is now quite free from the scourge. The first case happened there on August 30th. From that day to October 20th the reported cases were 569, with 416 deaths, nearly 75 per cent. On September 29th no less than 40 of 65 cases proved fatal. At Dronero, in the province of Cuneo, 36 per 1000 inhabitants were attacked with cholera, and just half that number succumbed to it.

Antiseptic dressings, according to the *Progrès Médical*, have recently figured before the German tribunals. A servant having received a wound in the chest last April died from septicæmia under the care of Dr. N., who, despising antiseptic dressings, treated his patient according to ancient methods. The doctor, prosecuted under article 222 of the Penal Code, was condemned, the Correctional Tribunal holding "that every medical practitioner should keep himself informed on the accomplished progress of science, and have an exact knowledge of modern systems of treatment. If these had been employed, the life of Dr. N.'s patient might have been saved." Hence his legal liability for negligence. The judgment was sustained by the Court of Appeal.

THE WILL OF THE LATE SIR ERASMUS WILSON.

PROBATE of the will and codicil of the late Sir William James Erasmus Wilson, Kt., F.R.S., F.R.C.S., was granted on the 17th ult. to Messrs. Henry Palfrey Stephenson, Frederick Lane Linging, and Charles Alfred Swinburne, the executors, the gross value of the personalty being sworn to amount to over £264,000. The testator bequeaths three oil paintings—viz., a Sea Piece, by Salvator Rosa, "Three Sheep," by Sidney Cooper, and a Hurricane in the Bay of Biscay when the ship *Cleopatra* was cast away, by E. W. Cooke—to his wife Dame Charlotte Mary Wilson for life, and after her death to his trustees upon trust to present them to the South Kensington Museum or such other public institution in Great Britain as they may think most desirable in the interests of the public; £500 and all other his pictures, prints, books, plate, wine, furniture, and effects at his dwelling-house, 17, Henrietta-street, Cavendish-square, or any other dwelling-house he may have at the time of his decease, to his wife; an annuity of £500 to his brother George John Marris Wilson, M.D.; and £1000 to each of his executors. All his real and leasehold estates, and all his personal estate savouring of realty, he gives to his wife absolutely. The residue of his personal estate he leaves upon trust to pay the annual income to his wife for life, and at her death £5000 each, free of legacy duty, to the Royal National Hospital or Sea Bathing Infirmary for Scorfula only at Margate, the Royal Medical Benevolent College incorporated by Act of Parliament, the Medical Benevolent Fund, and the Society for the Relief of the Widows and Orphans of Medical Men. The whole of the ultimate residue of his pure personalty he bequeaths to the Royal College of Surgeons of England, the receipt of the President and Vice-Presidents for the time being, or any two of them, to be an effectual discharge for such residuary bequest to the

person or persons paying the same. No directions whatever are given as to how the Royal College of Surgeons are to apply these large funds, and the trustees of the will have no voice in the matter, as their duties will end with the paying over of the money.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

Diphtheria and Fever in and about Dartford, by Mr. J. SPEAR.—The neighbourhood of Dartford is acquiring an unfavourable sanitary history. The rural sanitary district was inspected in 1879 by Dr. Thorne Thorne on account of a prevalence of diphtheria; the urban and rural districts were again inspected by Mr. Spear in 1882 on account of diphtheria in the rural and enteric fever in the urban areas, and now again the whole registration subdistrict of Dartford is reinspected by Mr. Spear in 1884. The enteric fever prevalence in the urban district, previously reported on, was found to have ceased; but on the other hand diphtheria had become more general and fatal in the whole subdistrict, and the urban district, which had previously escaped this disease, was found to be implicated. So far as the sanitary circumstances of the urban district are concerned, the reinspection resulted in ascertaining that a system of sewerage had been laid down, and that some commencement had been made in connecting houses with it, thus doing away with the ash-pits and privy-pits which had abounded there. So also there had been improvement in paving the streets and yards, and in enforcing the building bye-laws; but on the other hand, the extension of the Kent Company's water had been inadequate, and a large number of houses were still found to be dependent on supplies which are characterised as not only defective, but as often dangerous. The state of the rural district remains, in several important respects, most unsatisfactory. Diphtheria is maintained, recurring at intervals; and its reappearance is explained as affecting localities which have been previously invaded, and which still show many grave sanitary faults, such as lie within the power of a sanitary authority to remove. Such a statement, in an official report, throws a very serious responsibility on the authority, but the detailed descriptions which are given fully support the inference which is drawn. Botany Bay attracted attention in 1882 owing to the fatality from diphtheria and fever which it exhibited; during 1883 there occurred amongst its 300 inhabitants 3 deaths from diphtheria, 2 from so-called croup, and three from scarlet fever. In close proximity to the houses the ground is being riddled with cesspools. The original ones remain, and as fast as they fill fresh ones are dug; but they are so dug that the contents may to the utmost possible extent soak away. The soil also contains drains, some of which have been choked for six months, and in the midst of such filthy contrivances are sunk the wells which supply the inhabitants, notwithstanding the fact that the Kent supply is available. The sanitary condition of other localities which have already been previously reported on has also undergone no improvement. In Mr. Spear's last report he pointed out the generally defective character of the administration of the sanitary laws by the guardians, referring specially to their default in the abatement of ordinary nuisances. He also stated that the appointment of a single inspector of nuisances over an area of 35,000 acres and having a population of 20,000 was not calculated to ensure a proper performance of duty, especially as the officer in question was mainly engaged in other duties for the guardians. All remains just as it then did, and the only remedy seems to be for the inhabitants to make formal complaint to the Government under the Public Health Act.

Diphtheria in the Chippenham Rural District, by Dr. BLAXALL.—In this report Dr. Blaxall in the first case gives an account of some cases of diphtheria which were antecedent to those with which this outbreak was concerned. The particulars of the cases given are instructive, as showing how diphtheria may unwittingly be spread, and as indicating also that the infection is capable of being transmitted by persons who are not themselves affected. One other very important point transpires. Certain of the infected families occupied large farms supplying milk and cream to dairy companies, to whom the farmers have bound themselves under a heavy bond to report all cases of infectious disease occurring in or about their premises. But in these cases the actual character of the disease was not suspected, and hence no report could be made. The interests of the dairy customers could not therefore be protected, and the case affords another proof that in the boiling of all milk safety alone can be found. The epidemic more immediately considered took place at Lacock, where out of somewhat over 1100 people no less than 72 attacks and 8 deaths occurred, the outbreak dating from towards the end of November last. Thirty-eight of the cases were primary attacks in households, and of these 32 occurred in pupils of the Lacock school, who were in attendance there up to the dates of their respective attacks. Unwholesome conditions do not appear to have been specially concerned with the causation and spread of the disease, and the origin of the first case could not be precisely determined. But the affection once existing, personal communication between the sick and healthy was ample to account for the spread, and inquiry showed that after the school had been closed, its re-opening, on nearly every occasion, led to a fresh distribution of infection, some four or five children attending each time who were only just recovering from diphtheria. The village of Lacock needs numerous sanitary improvements as regards water-supply, means of closet accommodation, sewerage and drainage, &c. But of all indications to which such an epidemic as this gives prominence, the most urgent is the need for a wider provision of small hospitals, which would enable sanitary authorities at once to isolate first cases of infectious disease, and to keep them under supervision until they were really free from infection and fit to return to their homes and follow their usual avocations, whether these include school attendance or not. Such small hospitals in rural districts would save many lives, and would also prevent our system of compulsory education from acting as an indirect means of spreading disease.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Hull (Urban).—The borough of Hull had, in 1883, a birth-rate of 36·0 and a death-rate of 22·5 per 1000, on an estimated population of 176,296. The infant mortality was high. In the large towns of England the deaths under one year average 156 per 1000 births, but in Hull they reach 183. The great epidemic of scarlet fever from which Hull has suffered since 1881 has now practically subsided; the deaths from this cause during the year having fallen to 74. In dealing with the subject of infantile diarrhœa, Dr. Mason shows from the Hull records during the past fifteen years that the highest mortality occurs in the first or second week of August, the suddenness of the outburst being related to high temperature and low rainfall. In his opinion the origin and pathology of this disease point to a particular germ requiring a certain temperature for its development and propagation, and expending its virulence upon the intestines and lungs. He has not infrequently found amongst children that have died of diarrhœa a pneumonia secondary to the diarrhœa, and his investigations are now being directed in tracing the relationship between the two diseases. The prevalence of cholera in Egypt led to some action towards procuring a hospital for the purposes of the port, but the proceedings have unfortunately fallen through, both as regards the purchase of an old Admiralty vessel and as to acquiring a site on shore.

Taunton Urban District.—In so far as the death-rate is concerned Taunton has improved, although a rate of 21·5 per 1000 is by no means a small one for a borough of less than 17,000 people. The efforts to secure an improved water-supply have temporarily failed, owing to geological difficulties, but renewed efforts are being made in this direction. The system of sewerage remains defective, much more efficient means both of ventilation and of flushing being especially needed. Diphtheria, which has long hung about Taunton and its neighbourhood, was less last year, but the immediate isolation of first attacks and suspicious cases of sore-throat is still needed. Enteric fever was somewhat in excess in 1883, and it was largely dependent on the use of polluted well water, together with conditions favourable to the admission of sewer air into dwellings. The sanitary hospital received 72 patients, and the establishment is reported by Dr. Alford

as being more and more appreciated; persons able and willing to pay for their isolation making increasing use of it.

Taunton Rural District.—In the rural portion of the Taunton union the death-rate was 15·2 per 1000 living. Speaking generally, the means for the disposal of sewage is very unsatisfactory, and Dr. Alford warns the authority as to the consequences of leaving large cesspits and imperfect drains prevalent in the district. Diphtheria deaths still take a prominent place amongst the mortality records, and 28 cases of the disease were admitted into the sanitary hospital. The inspector of nuisances made a house-to-house inspection in thirty-eight parishes, and this exceptionally useful sort of work led to no less than 614 houses being dealt with as needing sanitary improvements.

Birmingham Urban District.—In his report for the third quarter of 1884 Dr. Alfred Hill shows that the epidemics of small-pox and scarlet fever, from which the borough had for some time suffered, have subsided. At the time he writes he says that not a single case of small-pox existed to his knowledge, whether in or out of the hospital; and as regards scarlet fever, though this disease never disappears from the borough, yet its epidemic prevalence had passed away. Diarrhœa caused a large fatality; in all, 559 deaths, or 70 per cent., of the gross number due to the seven principal infectious diseases occurred, the death-rate from this one cause amounting to 5·3 per 1000 of the population per annum. This fatality took place in connexion with an exceptionally hot August, the temperature during the month having been 3·6° above the average; indeed, the highest temperature ever registered by Dr. Hill in Birmingham occurred on the 11th of the month. There was also an exceptionally small rainfall; none fell for twenty-five days, and a reasonable average was only maintained by a fall of nearly one inch on the last day of the month.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

During the week ending the 1st inst., 6000 births and 3464 deaths were registered in twenty-eight of the largest English towns. The annual rate of mortality in these towns, which in the two preceding weeks had been 21·1 and 20·9 per 1000, further declined last week to 20·6. During the first five weeks of the current quarter the death-rate in these towns averaged 20·5 per 1000, against 21·0 and 19·7 in the corresponding periods of 1882 and 1883. The lowest rates last week in these towns were 15·0 in Norwich, 16·5 in Nottingham, 17·1 in Brighton, and 17·2 in Birkenhead. The rates in the other towns ranged upwards to 26·3 in Bolton, 26·9 in Blackburn, 27·9 in Cardiff, and 28·8 in Preston. The 379 deaths referred to the principal zymotic diseases in the twenty-eight towns included 84 from diarrhœa, 67 from "fever" (principally enteric), 66 from scarlet fever, 57 from measles, 50 from whooping-cough, 31 from diphtheria, and 24 from small-pox. No death from any of these diseases was recorded last week in Brighton; while they caused the highest death-rates in Cardiff, Hull, and Preston. The largest proportional mortality from "fever" occurred in Derby, Preston, and Halifax; from scarlet fever in Sunderland, Cardiff, and Sheffield; from measles in Sunderland, Cardiff, and Sheffield; and from whooping-cough in Halifax and Hull. The 31 deaths from diphtheria in the twenty-eight towns included 22 in London and 4 in Liverpool. Small-pox caused 21 deaths in London (exclusive of 16 London cases registered outside Registration London), 2 in Birkenhead, and 1 in Hull. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had been 504, 558, and 596 on the three preceding Saturdays, were 580 at the end of last week; the new cases admitted were 101, against 68, 144, and 173 in the three preceding weeks. The Highgate Small-pox Hospital contained 18 patients on Saturday last, 3 new cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which in the six previous weeks had increased from 159 to 274, further rose to 348 last week, but were 38 below the corrected weekly average. The causes of 68, or 2·0 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Bristol, Nottingham, and in three other smaller towns. The largest proportions of uncertified deaths were recorded in Leicester, Salford, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 21·3 and 21·4 per 1000 in the two preceding weeks, rose to 22·5 in the week ending the 1st inst., and was 1·9 above the mean rate during the same period in the twenty-eight large English towns. In the Scotch towns the rates last week ranged from 16·0 and 16·8 in Paisley and Perth, to 21·5 in Greenock and 26·7 in Glasgow. The 543 deaths in the Scotch towns included 25 which were referred to scarlet fever, 23 to diarrhœal diseases, 22 to whooping-cough, 20 to diphtheria, 14 to measles, 12 to "fever" (typhus, enteric, and simple or undefined), and not one to small-pox; in all, 116 deaths resulted from the principal zymotic diseases, against 101 and 110 in the two previous weeks. These 116 deaths were equal to an annual rate of 4·8 per 1000, which was more than double the mean rate from the same diseases in the twenty-eight English towns—only 2·3. The 25 fatal cases of scarlet fever showed a further increase upon recent weekly numbers, and included 17 in Glasgow (against 14 and 13 in the two previous weeks), 5 in Greenock, and 2 in Edinburgh. The deaths referred to diarrhœal diseases, which had declined in the five preceding weeks from 52 to 21, were 23 last week, including 5 in Glasgow, 6 in Dundee, and 4 in Aberdeen. The deaths from whooping-cough, which had been 18 and 15 in the two previous weeks, rose to 22 last week; 7 occurred in Glasgow and 6 in Dundee. The 12 deaths referred to "fever," showing a decline of 3 from those in the previous week, included 8 in Glasgow and 3 in Edinburgh. Of the 14 fatal cases of measles, considerably fewer than any recent weekly number, 8 occurred in Glasgow and 6 in Aberdeen. The 112 deaths referred to acute diseases of the respiratory organs in the eight Scotch towns showed an increase of 27 upon the low number in the previous week, but were 10 below the number returned in the corresponding week of last year. The causes of 76, or 14 per cent., of the deaths in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 30·2 and 26·8 per 1000 in the two preceding weeks, further declined to 24·7 during the week ending the 1st inst. During the first five weeks of the current quarter the death-rate in the city averaged, however, 27·4 per 1000, the rate for the same period not exceeding 18·6 in London and 17·9 in Edinburgh. The 166 deaths in Dublin last week showed a further decline of 14 from the numbers in the two previous weeks, and included 25 which resulted from the principal zymotic diseases, against 25 and 29 in the two preceding weeks; of these, 10 were referred to scarlet fever, 9 to "fever" (typhus, enteric, or simple), 4 to diarrhœa, 2 to whooping-cough, and not one either to small-pox, measles, or diphtheria. These 25 deaths were equal to an annual rate of 3·7 per 1000, the rate from the same diseases being 2·1 in London and 2·3 in Edinburgh. The fatal cases of scarlet fever, which had been 5 and 12 in the two previous weeks, declined again to 10 last week, and the fatal cases both of diarrhœa and of whooping-cough were less numerous than in the previous week. The deaths referred to "fever," however, which had been 10 and 6 in the two previous weeks, rose again to 9 last week. Six inquest cases and 5 deaths from violence were registered during the week, and 69 of the 166 deaths occurred in public institutions. The deaths both of infants and of elderly persons showed a further decline from recent weekly numbers. The causes of 21, or nearly 13 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

ARMY MEDICAL STAFF.—Surgeon-Major Allan Nesbit Fox, M.B., is granted retired pay, with the honorary rank of Brigade Surgeon.

Sudden orders, it is announced, have been received by the general commanding the Aldershot district to arrange to despatch about 100 men of the Medical Staff Corps to embark at once for conveyance to Egypt. Orders were also received to prepare a strong detachment of the same corps for immediate embarkation for South Africa.

ADMIRALTY.—The following appointments have been made:—Surgeons Edw. W. von Tunzelmann and Edw. B.

Townsend, to the *Duke of Wellington*, additional, for Haslar Hospital, reappointed; Surgeon James M. Rogers, to the *Royal Adelaide*, additional, for Plymouth Hospital; Surgeon C. L. Nolan, M.B., to the *Indus*; Surgeon Francis H. Julyan, to the *Pembroke*, for disposal; Surgeon Edward C. Ward, M.D. to the *Repulse*; Surgeons Herbert W. G. Doyne and Thomas Dunlop, M.B., to the *Royal Adelaide*, for disposal; Surgeon Alexander B. Murdock, M.B., to the *Duke of Wellington*, for disposal; Surgeon Samuel Johnson, M.B., to the *Asia*, for disposal; Surgeon H. R. Osborne, to the *Valiant*; Surgeon Alexander G. Wildey, to the *Duke of Wellington*; Harold F. D. Stephen, M.B., to the *Cambridge*; Surgeon Patrick B. Handyside, M.B., to the *Asia*; Surgeon William R. M. Young, to the *Defence*; Staff Surgeon Christopher Harvey, to Yokohama sick quarters; Staff Surgeon Otway P. Browne, to the *Kingfisher*; Surgeon John H. Thomas, to the *Humber*; Surgeon Ludlow T. Colthurst, M.D., to the *Flora*; Surgeon Percy W. Bassett-Smith, to the *Rambler*.

Correspondence.

"Audi alteram partem."

THE CHOLERA BACILLUS.

To the Editor of THE LANCET.

SIR,—You will, I am sure, excuse my troubling you with another brief communication relative to the cholera bacillus.

You state in your issue of Oct. 18th that Dr. Aurelio Bianchi of Florence has just collected and published some manuscript observations made by his late teacher during the cholera epidemic which prevailed in Florence in 1855, and that "the editor claims that Pacini was the first who instituted microscopic researches with a view to discover the nature of the Asiatic plague, and that he described, with much precision and truth, under the generic name of 'vibrio,' the organisms now known as 'microbes.'" The claim thus set forth cannot be sustained, and is capable of disproof on evidence not to be set aside.

Professor Pacini's observations were made on cases which occurred during the cholera epidemic of 1855, and the first microscopical examination was made on the body of a man who died on February 12th of that year. My investigations were made during the epidemic of 1854, and my three reports—(1) On the Microscopical Examination of different Waters, principally those used in the Metropolis during the Cholera Epidemic of 1854; (2) On the Microscopical Examination of the Blood, and Rice-water and other Excretions of Cholera Patients; (3) Reports stating the Results of the Microscopical Examination of the Skin and Clothes of Cholera Patients—were published in the "Appendix to the Report of the Committee for Scientific Inquiries in relation to the cholera epidemic of 1854, a committee appointed by the Government of that time. The report first named was dated December 21st, 1854; the second report, which contained the description of the results of the microscopical examination of the blood, rice-water evacuations, and other excretions of cholera, bore date January 22nd, 1855; while the third report bore, I believe, the same date. These dates are therefore conclusive.

Stated in the fewest possible words, I showed in these several reports that in the impure waters taken from the river Thames, with which London was then supplied, "vibriones," which would now be called "microbes" and "bacilli," were of frequent occurrence in very notable quantities; that the blood of persons affected with cholera was entirely free from such organisms, as also was the urine, but that the rice-water evacuations of cholera abounded during the life of the patient with myriads of vibriones, some of which, from the description recently given by Koch of his cholera bacillus, were undoubtedly identical with what he has described under that name.

Lastly, that the textures of the skin itself were entirely free from any organisms, but that the clothes worn by cholera patients, by having become stained with the evacuations abounded with vibriones identical with those present in the evacuations.

I am, Sir, your obedient servant,

ARTHUR HILL HASSALL, M.D. Lond.

San Remo, October 20th, 1884.

ENGLISH MEDICAL DEGREES FOR ENGLISH STUDENTS.

To the Editor of THE LANCET.

SIR,—Your able leader of last Saturday on the disastrous effects of the competition of the Scotch universities on London schools will surprise no one. And your account of the hardship to English students wanting medical degrees will be received with gratitude. As a Scotch graduate I cannot, indeed, admit the justice of your contention that Scotch degrees are as easy of attainment as the diploma or licence of English colleges. Such a statement is refuted by the experience of those who have passed both examinations and by the position taken ultimately in the profession by the graduates of the Scottish universities, as well as by reference to the curriculum of the respective bodies. I must admit, however, with grief, that the Scotch universities have chiefly themselves to blame for the persistency with which such disparagement of their examinations is expressed by yourself and by other English authorities. Their recent junction with the Scotch Corporations for the purpose of obstructing or defeating medical legislation justifies the conclusion that they are afraid of an independent board where their work would be tested at the least possible cost to their graduates and with the greatest advantage to their reputation and to the State. I readily admit that graduation on such a scale as that going on in Scotland now may readily become a temptation, and, as a Scotch graduate, I wish to see the Universities of Scotland accept, and even invite, any independent test that a reasonable and friendly Government may suggest. But if they persist in refusing such a test, it will certainly be the duty as well as the wisdom of English teachers, especially those of London, to take some trouble to create a university in London in which medical graduation can be obtained on some such terms as those of Scotland. It would be simply disastrous if the enormous clinical field of London and its unsurpassed staff of capable teachers were to cease to be in demand for the purposes of English medical education. And there is no excuse for the impracticable regulations of the London University, of which no material section even of its own medical graduates, I believe, approves. They are a crying injustice to diligent and capable English students, who may fairly claim to have an English degree within reach.

On one other point, however, Sir, I must beg seriously to differ from you—viz., in your opinion that a "University of Physicians and Surgeons" will suffice to meet this great want. "A University of Physicians and Surgeons!" This is an expression which does not sound well. There is a "shoppy" ring about it. A university, as Dr. Johnson says, is "a school where all the arts and faculties are taught and studied." Only from such a university can degrees proceed, and it is certain that degrees from a "University of mere Physicians and Surgeons" would never be able to compete with universities in the ancient and wider sense. Is it really past hoping for that the University of London will reconsider its duties on the pretext that it would practically disestablish the ancient colleges by co-operating with them? Rather by entering into co-operation with them, in my judgment, would it give these ancient colleges a new status without necessarily disturbing their existing functions. Be this as it may, there ought to be no insuperable difficulty in founding a university in London that will do for English students of medicine what the Scotch universities do for Scotch practitioners, and for so large a proportion of English students, but in doing which they refuse to satisfy English opinion.

I am, Sir, your obedient servant,

Nov. 6th, 1884. A SCOTCH GRADUATE.

THE LATE DR. SAMUEL RABBETH.

To the Editor of THE LANCET.

SIR,—A meeting was held this afternoon at King's College, at which many eminent members of the medical profession and other distinguished persons were present, in honour of the late Dr. Samuel Rabbeth, and I am desired, as one of the secretaries, to ask your assistance in making its purpose known to the profession. A large committee was appointed, including among others the chairman and vice-

chairman of King's College and the Royal Free Hospitals, Sir William Bowman, Sir William Gull, Sir Joseph Lister, Dr. Priestley, Professors Johnson and Wood, the Rev. Dr. Stokoe, and Mr. F. J. Gant. His Grace the Archbishop of Canterbury has kindly consented to be honorary president. This committee will take into consideration the best means of commemorating the name and sacrifice of Dr. Rabbeth, at the two hospitals with which he was connected and at the University of London, of which he was a distinguished graduate. The Principal of King's College and R. Ruthven Pym, Esq., have been requested to act as treasurers. Messrs. Coutts and Co., Strand, have kindly consented to receive subscriptions to the fund.

I am, Sir, yours truly,

JOHN CURNOW, M.D.,

King's College, Nov. 5th, 1884. Dean of the Medical Faculty.

P.S.—Sir Wm. Jenner has just written me a letter expressing his sympathy with the movement, desiring that his name may be added to the committee.

SMALL-POX AND BLINDNESS.

To the Editor of THE LANCET.

SIR,—The necessity for and the great value of vaccination and revaccination have been recently brought before us in a very prominent way by the medical press. The facts which I am about to state (which are somewhat akin to those contained in Mr. Tweedy's interesting letter) are of a class not usually mentioned when dealing with this subject and are most convincing proofs of the efficacy of vaccination. The committee appointed by the Ophthalmological Society to report upon the Government scheme for the prevention of blindness from ophthalmia neonatorum, which I had proposed and which was subsequently adopted by the Society, having thought it advisable, inquiries were made to ascertain what percentage of the inmates of the institutions for the blind was due to purulent ophthalmia. With that object I examined the records of the Deaf, Dumb, and Blind Institution at Belfast, and, being strongly impressed by what was there disclosed regarding small-pox, I made the following notes:—Small-pox was the cause of the blindness of 26 of the first 87 recorded blind pupils admitted from 1845 till Oct. 18th, 1859; of two of the next 31 admitted; and of not one of the remaining 98 (up till the present year). I may present the matter in a much more striking light, thus:—Of the first 98 admissions, small-pox caused 27; whilst of the last 98 admissions it did not cause a single one. This certainly does not require comment.

I am, Sir, your obedient servant,

DAVID MCKEOWN, M.D.

St. John-street, Manchester, Oct. 1884.

To the Editor of THE LANCET.

SIR,—In your issue of the 18th inst., Mr. Tweedy narrates a striking instance of loss of sight caused by small-pox after wilful neglect of vaccination. I can supply a similar case. I lately saw at St. Mary's Hospital a young woman who had lost her right eye from variola, and whose face was very deeply pitted and disfigured. I found that she had no vaccination scars. On inquiry, she informed me that her father, having lost a baby soon after vaccination, had refused to allow his three youngest children to be vaccinated. Some years ago the eldest of these three died rapidly of "black fever," and very soon afterwards the youngest (my patient) had a severe attack of small-pox, and lost her eye. The second of the three insisted on being vaccinated, and she entirely escaped the disease. Comment is surely needless.—I am, Sir, yours truly,

DAVID B. LEES, M.D., F.R.C.P.

Thurloe Houses, S.W., October 23th, 1884.

THE LATE PROFESSOR COHNHEIM.

To the Editor of THE LANCET.

SIR,—A committee has been formed in Germany from amongst the friends and pupils of the late Professor Cohnheim, whose premature death a few months ago has been most deeply and widely lamented throughout the medical world, for the purpose of erecting a suitable monument over his grave. To the profession generally Cohnheim was only known for his great scientific attainments, and uncommon originality of research; but to a large circle of friends and pupils, who came to study under him from all parts of the world, he had greatly endeared himself by the charm of his manners and the large and warm-hearted sympathy which he freely gave to all those who were, like him, striving to cultivate the fascinating field of experimental pathology.

I have been requested by Professor Wagner of Leipzig, on the part of the committee, to acquaint, through the medium of your columns, Cohnheim's friends and old pupils in England and the United States with the object of the committee; and I shall be happy to receive and transmit any contributions towards the fund which is now being raised to the treasurer, Professor His of Leipzig. The list will be closed at the end of the year, after which a statement will be forwarded to all subscribers. I am, Sir, your obedient servant,

JULIUS ALTHAUS, M.D.

48, Harley-street, Cavendish-square, W., Nov. 4th, 1884.

PERILS OF CHLOROFORM ADMINISTRATION IN DENTAL OPERATIONS.

To the Editor of THE LANCET.

SIR,—When a student at St. Bartholomew's Hospital I remember Dr. Brunton saying that if a patient were not thoroughly under the influence of chloroform any irritation of the fifth nerve would produce slowing of the heart's action, and finally stoppage through the pneumogastric nerve. He clearly showed us this by an experiment on a rabbit. Surely this may account for the untimely and lamentable death of Mr. Macdonald, a brother medical man, at Nottingham, and many others, from operations on the face and teeth. I have always acted on Dr. Brunton's view, and, if giving chloroform for an operation implicating the fifth pair of nerves, have pushed it until the patient is completely under its influence. I think this is a matter which, if more generally known, might save human lives.

Yours faithfully,

W. E. BUCK,

Leicester, Nov. 4th, 1884. Physician to the Leicester Infirmary.

LIVERPOOL.

(From our own Correspondent.)

HOSPITAL SATURDAY AND SUNDAY.

THE annual meeting in connexion with Hospital Sunday was held on the 3rd inst. in the Town Hall, the Mayor presiding. The Committee reported that the collections for 1884 amounted (together with the contributions on Hospital Saturday) to the sum of £10,076. Although the number of collections showed an increase of twenty-one, the sum realised was £349 less than in 1883. There was also a decline of £11 in the Hospital Saturday boxes, and the total sum realised showed a decrease of £376. The total sum divided amongst the medical charities was £9800, and the expenses amounted to a trifle over 2½ per cent. on the total amount raised. The falling off in the receipts is much less than might have been expected considering the great and long continued depression in trade and commerce, but notwithstanding this a very general feeling prevailed at the meeting that the sum of £2524 raised by the working classes on Hospital Saturday ought to be at least doubled.

THE SCHOOL OF MEDICINE.

The number of students attending the anatomical classes shows a slight increase over that of last year. There is an ample supply of subjects, and the arrangements are so excellent that the mildness of the weather is not so unfavourable to dissection as it might have been. All the lectures are fairly well attended, and clinical lectures are given in rotation by the physicians and surgeons of the Royal Infirmary, and by the surgeons of the Lock Hospital.

MEDICAL CITY COUNCILLORS.

Mr. Robert Hamilton, Senior Surgeon to the Royal Southern Hospital, was re-elected one of the members for North Toxteth Ward by a very large majority. Dr. Cross, Mr. A. M. Bligh, and Mr. N. Marsh, surgeon, are also members of the City Council.

DEATH FROM CARBOLIC ACID POISONING.

Another has been added to the already frightfully large number of deaths from accidental poisoning by carbolic acid. On Sunday last a corporation scavenger was offered by a companion a bottle supposed to contain rum, but which unfortunately contained carbolic acid. Before the error had been detected he had swallowed the poison, and died soon afterwards. At the inquest an open verdict was returned.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

NEWCASTLE HOSPITAL SUNDAY.

MR. R. H. HOLMES, the hon. secretary, and one of the pioneers of the Hospital Sunday movement in the North, writes to our papers pointing out the very encouraging fact that notwithstanding the depression in trade the first published list of the late collection shows little or no falling off in amount as regards workshops, and when compared with the corresponding collection of last year. He further points out that a collection of one penny per week at the shops would yield a more satisfactory result at the end of the year than a single collection, while a penny a week would be scarcely felt by men in regular employment.

CHEAP FOOD AND CHEAP COOKING.

Mr. Walter Scott, of Paternoster-square and Newcastle, has brought out in a penny pamphlet form, well illustrated by coloured diagrams and tables, the lecture of the Rev. Moore Ede, rector of Gateshead, on the subject of penny dinners for school children. The publication appears at a time when much attention is being given to food economics. Mr. Ede acknowledges having received his inspiration on the subject from reading the article in the *Pall Mall Gazette* of April 3rd, 1884, entitled "My Social Revolution by the ex-Brandy King of Sweden," which was an account of some social movements inaugurated by Mr. L. O. Smith of Stockholm, who was at one time head of the brandy trade in Sweden. He also acknowledges the assistance he received in his work by valuable receipts from Mr. and Mrs. Burgess, of the now celebrated Rousden School; nevertheless, the Rev. Mr. Ede must be regarded as the pioneer of the cheap dinner movement in our Northern counties, and he has spared neither trouble nor expense in its development. I saw at Messrs. Walker and Emley's factory, Newcastle, the other day, a penny dinner cooker in process of manufacture; it is circular in form, and very portable and light; the diameter varies according to the required capacity; the outer case is made of galvanised, and the inner one of tinned, sheet-iron, the space between the two being filled by a special non-conducting material. By means of this nearly all the heat from the patent gas-burners, which are fixed below, is utilised; a small expenditure of gas is sufficient to boil the water and cook the food efficiently. Soups and some other foods are cooked in a loose inner pan, which almost fills the internal space of the cooker, leaving only a margin for the surrounding boiling water. As the Rev. Mr. Ede points out, the adoption of suitable apparatus for cooking is essential to the success of the system, and he believes that Messrs. Walker and Emley have solved the problem by the introduction of their penny dinner cooker.

At Gateshead Drs. Mearns and Purdie have received testimonials from the ambulance classes which have been under their instruction.

Sir Wm. Armstrong has, with his usual munificence, sent a donation of £500 towards the building fund of the Newcastle Eye Infirmary. The late bazaar at Darlington of the hospital and dispensary has yielded the handsome amount of £2600.

Newcastle-on-Tyne, Nov. 3rd.

DR. LOUIS ALEXANDER DUGAS has recently died at his home in Augusta, Ga., in the seventy-eighth year of his age. Dr. Dugas served several times as President of the Medical Association of Georgia, and from 1851 to 1858 he acted as editor of the *Southern Medical and Surgical Journal*.

GLASGOW.

(From our own Correspondent.)

THE ROYAL INFIRMARY.

MUCH dissatisfaction has existed for some time among the students at the Royal Infirmary School on account of the fact that so few of the appointments on the resident staff have fallen to their share, Glasgow University students and graduates from Edinburgh being accepted to the almost entire exclusion of those educated at the Royal Infirmary itself. This shows bad policy on the part of the infirmary directors, and will tend much to render the school unpopular; it conveys, moreover, an unjust reflection on their own students, who have reason for expecting to be fairly represented on the staff.

CHANCELLORSHIP OF THE UNIVERSITY.

It seems now certain that this office will fall to the Earl of Stair, as his only opponent, the Marquis of Bute, has withdrawn from the threatened contest. The Marquis, in connexion with his withdrawal, has addressed to the Principal of the University a letter marked throughout by singular grace and elevation of tone.

MEDICAL BURSARIES.

Mrs. Monteath, Greenbank, Dowan-hill-gardens, Glasgow, has placed in trust the sum of £1000 for the establishment of two bursaries to be awarded to students of Glasgow University who gain the highest number of marks in the subjects of anatomy and physiology at the professional examinations on these subjects held during the year. A bursary of the value of about £20 will be awarded annually in November, and will be tenable for two years. Mrs. Monteath has founded these bursaries in memory of her husband, the late Mr. John Monteath, and she directs that it be represented to the holders that they should feel themselves in honour bound after graduation to render professional assistance to the poor as much as may lie in their power.

PANIC ACCIDENT IN A MUSIC HALL.

Another of these shocking accidents has occurred in Glasgow, happily on a smaller scale than in Sunderland last year. An audience of about 1300 rushed in a panic from a music hall in which a false alarm of fire had been raised. Fourteen persons were killed outright, and over twenty injured. The injuries, with the exception of two fractures (one of the arm and the other of the clavicle) consisted mainly of severe nervous shock.

RECTORIAL ELECTION, ABERDEEN UNIVERSITY.

Dr. Bain is put up by the Liberals for re-election to this important office. He is recommended on educational grounds solely and on no political grounds whatever. His opponent is Lord Randolph Churchill, who has accepted nomination.

PARIS.

(From our own Correspondent.)

THE CHOLERA.

SINCE my report of last week there have been nine fresh cases of cholera at Yport, and three deaths. The disease has broken out at Nantes, and from the 24th of October to the 4th of November 72 cases occurred, but the number of deaths have not been reported. The affected provinces are becoming less in number. The following are the districts where cholera is now prevailing: Bouches-du-Rhône, Gard, Pyrénées-Orientales, Var, Oran, Seine Inférieure. The total number of deaths from the disease were 31 from the 11th to the 17th of October, and 19 for the week ending the 24th of October. In Algiers the mortality from 11th to the 17th October was 52, from the 18th to the 24th October it was seven. No reports are now published from Toulon and Marseilles, as these places have been for some time free from cholera.

ILLNESS OF M. FAUVEL.

At the meeting of the Academy of Medicine yesterday the President announced that M. Fauvel, the eminent epidemiologist, and Vice-President of the Academy, is dangerously ill, being laid up with double pneumonia.

Paris, Nov. 5th, 1884.

MEDICAL NOTES IN PARLIAMENT.

Thames Valley Drainage.

On Monday, in the House of Commons, in reply to a question by Mr. Giles, Mr. C. Russell stated that the Local Government Board have been in communication with the several local authorities with a view of determining whether the pending inquiry into the Thames Valley drainage shall be limited to the dissolution of the Lower Thames Valley main sewerage, or the question of the separation from the district of certain constituent authorities. The constituent authorities who have expressed themselves as desirous of being separated from the joint district are the urban sanitary authorities of Kingston, Richmond, Heston and Isleworth, New Malden, and East Moulsey, and the rural sanitary authority of the Kingston Union.

Chlorine Poisoning at Runcorn.

On Tuesday, in reply to Mr. Warburton, Mr. G. Russell stated that no information as to the alleged deaths of two children from suffocation by chlorine gas from alkali works at Runcorn had as yet been received, but that inquiry would be made on the subject.

Indian Medical Service.

On Thursday, Mr. J. K. Cross, in answer to Mr. Gibson, who inquired whether any, and if so what, steps had been taken by the Indian Government to lessen or remove the grievances of the Indian Medical Service, said the measures taken for reducing the number of unemployed medical officers in India had been efficacious. The Government of India had telegraphed that there are now only two unemployed officers in Bengal, and they have promised to communicate the number still unemployed in Madras and Bombay. It has been decided to place all surgeons of the Indian Service not holding executive charge on precisely the same footing in respect to pay as surgeons of the Army or British Medical Department similarly situated. The lower rate of pay hitherto called "unemployed pay" will for the future be called grade pay, and will only be given when the officer is in receipt of staff salary in addition to his pay.

Over-pressure in Board Schools.

Mr. Stanley Leighton inquired of the Vice-President of the Committee of Council whether, in view of the statements contained in a report made at his request, by Dr. Crichton Browne, he would take steps to procure the appointment of a commission of medical men unconnected officially with the Education Department to inquire whether the present method of applying the Elementary Education Act injuriously affected the health of the children and teachers.—Mr. Mundella replied that, as an efficient and impartial inquiry had already been undertaken, he did not see the necessity for a second inquiry. The most careful precautions had been taken to guard against over-pressure, and the operation of the revised regulations under the new code were being carefully watched. The public discussion of this question had resulted in the establishment in the metropolis of voluntary associations with the object of supplying food and clothing to necessitous children attending schools, and that with the co-operation of three or four members of the House he had been able to offer considerable help to those committees.

Examination of Surgeons-Major.

Sir Henry Fletcher inquired of the Secretary of State for War, with reference to the regulations in regard to the examination of surgeons-major for promotion to the rank of brigade surgeon, as laid down in the Army Circular, dated Nov. 1st, 1884, whether there was any precedent for examining officers ranking as lieutenant-colonel of six years' standing, and was it proposed to extend these examinations to the other scientific branches of the army; was it a fact that several of the senior surgeons-major are over fifty years of age; and was it the case that H.R.H. the Field Marshal Commanding-in-Chief, when giving evidence before Lord Morley's Committee, expressed an opinion against subjecting such old officers to examination; and by whose recommendation were these examinations instituted.—The Marquis of Hartington, in reply, stated there were several surgeons-major over fifty years of age who before being promoted to the rank of brigade surgeon would be required to undergo examination. It was the case that H.R.H. the Field-Marshal Commanding-in-Chief, in his evidence before Lord Morley's Committee, expressed an opinion adverse to the examination of officers so advanced in life; but after full consideration of the difficulty of selecting officers for the rank of brigade surgeon, the examination was determined upon at the suggestion of the Director-General. There was probably no precedent for the examination of similar rank and service; but there was probably no case in which the grounds of selection for promotion were so difficult to arrive at. There was no intention to propose an extension of the system of examination to the corresponding combatant ranks.

Obituary.

GEORGE LUMGAIR, M.D., F.R.C.S.E.

On the 1st inst. the death occurred of Dr. George Lumgair, one of the best known and most highly respected practitioners in Fife. Born at Arbroath, Dr. Lumgair received his medical education at the University and College of Surgeons, Edinburgh, and in 1837 commenced the active practice of his profession at Largo, Fifeshire, where he continued at work for forty-seven years. Although greatly troubled by bronchial asthma, he worked perseveringly, and is only known during this long period to have taken three holidays. Two years ago he was appointed Justice of the Peace, and he was unanimously elected first President of the Fifeshire Medical Association when that body was constituted two years ago. At the time of his death Dr. Lumgair was in the sixty-seventh year of his age.

T. F. WATTS, M.B., C.M.

We have to record the death, at the early age of thirty-two, of Thomas Fowle Watts, M.B., C.M., Medical Officer H.M. Convict Prison, Dartmoor, which occurred after a short illness on October 23rd. Mr. Watts was appointed assistant surgeon at the above prison, November 26th, 1880. On July 27th, 1881, he left Dartmoor for Liverpool, and on August 25th, 1882, returned as medical officer to Dartmoor. The funeral took place on October 28th, and the respect in which the deceased gentleman was held was shown by the presence, in addition to that of his own immediate relatives, of all the principal prison authorities and warders, and also of the greater part of the villagers and of many friends who had come from a distance.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Members of the College on Oct. 30th:—

Cullimore, Daniel Henry, M.D. Brussels, Welbeck-street.
Daly, Edward Owen, M.B. Oxford, Hull.
Maudsley, Henry, M.D. Lond., University Hospital.
Oliver, James, M.B. Edinburgh, Montague-street.
Wilkinson, William Camac, M.B. Lond., Manchester-street.

On the same day the following gentlemen were admitted Licentiates of the College:—

Anderson, Daniel Ellis, Endsleigh-gardens.
Baillie, Robert Alexander, Radnor House, Blackheath-park.
Bidwell, Herbert, St. Thomas's Hospital.
Blight, William Lyne, Pondsavey, Sladesbridge.
Bond, Charles Knox, Lupus-street.
Byrne, George, Withington, Manchester.
Cann, Ralph Thomas, Lambeth-palace-road.
Chapman, Harry Cecil, St. Mary's-terrace.
Crocker, John Hedley, Lyncham Lodge, Lee-road.
Davies, Jenkin, Larkhall-lane.
Des Voeux, Harold Antoine, St. George's Hospital.
D'Monte, Dominick Anacleto, Melville-terrace, Edinburgh.
Ellis, Charles Cartwright, Clarendon-road.
Fox, Herbert, Brambletye, Park-hill, Croydon.
Gray, Thomas Underwood, Essex-road.
Griffiths, Charles Thomas, Caithcart-road.
Habgood, Henry, Chewton Mendip, Bath.
Hall, Alfred Richard, Sunniesr-place.
Harlock, Harry, Backfastleigh.
Hughes, Edgar Alfred, Onslow-gardens.
Humphreys, Charles Style, Chichester-street.
Jones, Isaiah Henry, Maida-vale.
Kerby, Robert John, Warltersville-road, Crouch-hill.
Kostulitz, Maurice, Bootle, Liverpool.

Lasiett, Thomas George, Grosvenor-terrace, Liverpool.
Livermore, William Leppingwell, Queen's-road, Finsbury-park.
Low, Charles William, Vicarage-park, Plumstead.
Marten, Robert Humphrey, Granby-street.
Miles, George Edward, Northumberland House, Finsbury-park.
Morgan, George, Market Drayton.
Santi, Philip Robert William, Doughty-street.
Stevens, Percy Richard, Oakley-square.
Thomas, Benjamin Wilfred, Heathcote-street.
Voisin, Alexander Bishop, St. Helier's, Jersey.
Weakley, Alfred James, Ramsay-road, Leytonstone.

The following gentlemen passed the Primary Examination for the licence of the College on the 4th inst:—

G. W. Adams, O. W. Andrews, E. C. Arnold, J. Bamfylde, G. R. S. Banbury, J. B. H. Booth, R. F. Bowie, H. W. Branson, A. A. Brockat, F. A. Brooks, R. P. Brooks, C. H. Buckley, K. T. Bulo, J. T. Calvert, D. M. L. Campbell, P. T. Carpenter, J. S. Caskey, C. W. M. Castle, F. E. Cave, R. H. Chapman, A. D. Chapple, G. L. Cheatle, J. W. Cockerill, F. G. Connolly, F. Corner, J. H. Cox, W. C. Croxford, A. E. Deane, S. B. C. De Butts, A. L. Devenish-Meares, F. J. Dewes, W. F. Dewsnap, C. J. Deyns, H. M. Doyle, C. A. Duckett, E. H. Ellison, E. W. Emtage, F. G. Falles, J. H. Fardon, F. J. Fletcher, T. W. Francis, H. S. Fremlin, C. Fryer, F. E. Gibbens, J. W. Gill, H. E. Gough, C. Greene, R. P. Griffin, W. G. Gyton, C. D. Hamilton, F. A. Harger, G. J. Harris, R. Hedley, Habeeb Jabboor, Hanna Jabboor, C. L. S. James, W. C. Jarvis, J. G. Johnson, E. E. King, F. J. Knowles, R. Lake, A. P. Lange, G. S. Leggatt, R. Leigh, P. G. Lewis, C. W. Lockyer, W. W. L. McLean, W. Marris, F. G. C. Martin, J. P. Martin, R. Martyn, S. C. H. Moberly, F. P. Moles, J. C. Morgan, E. Nason, P. L. Nettleship, E. J. Nixon, F. J. Oxley, E. B. Parfitt, R. H. Penton, J. Pietersen, C. F. Pridham, H. Rhodes, N. B. Robinson, J. P. Roughton, A. B. Roxburgh, D. N. Ruck, W. J. Rugg, H. A. Sansom, T. F. Shackleton, J. S. Sharman, C. W. Smeeton, L. M. Snow, P. B. T. Stubbs, A. M. Sully, W. R. Thomas, G. Thorpe, H. B. Trist, J. F. Vincent, S. G. Vinter, L. Vintras, J. P. Wagstaff, C. G. Wallis, J. J. Weaver, J. Wigg, T. H. Williams, C. J. Wills, H. E. Winter, C. F. Wright.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Oct. 30th:—

Parker, W. Turnour, Lillie-road, Fulham.
Sansom, Charles Lane, Devonshire House, Anerley.
Sugden, Edgar Brewitt, Adamson-road.

ON the 4th inst., medallions were presented by Lady Brassey to certificated pupils of the Woolwich Centre of the St. John Ambulance Association.

A MEDICAL CENTENARIAN. — The "New York Medical Journal" says that Dr. C. C. Graham, of Louisville, completed the age of one hundred years on the 10th inst.

ROYAL INSTITUTION OF GREAT BRITAIN.—William Miller Ord, M.D., has been elected a manager, in the room of the late Right Hon. Lord Claud Hamilton.

THE Swansea Choral Society's bazaar has resulted in an addition to the funds of the Swansea Hospital of £300.

THE Ocean Steam Yachting Company propose to despatch their Steam Yacht *Ceylon* for a cruise of sixty-five days to the West Indies, in December next, provided that a limited number of passengers are secured.

UNIVERSITY OF CAMBRIDGE.—The third examination for the degree of Bachelor of Medicine, part 2, will begin on Wednesday, December 10th. Mr. Walter Heape has been appointed Demonstrator in Animal Morphology.

AN evening fête is to be held on Wednesday, the 26th inst., at the Bread Reform Exhibition, Humphrey's Hall, Knightsbridge, to establish a fund to provide penny breakfasts and dinners to poor London school children.

SUPERANNUATION.—Mr. Robert Jones, M.R.C.S., L.S.A.L., late Medical Officer of the Conway District and Workhouse of the Conway Union, has been awarded a superannuation allowance of £40 a year.

IN view of the difficulty of enforcing the Vaccination Acts in Leicester, the board of guardians have decided to lay the whole circumstances before the Local Government Board and to solicit their advice.

BEQUESTS.—By the will of the late Dr. Alex. Gibb, late Inspector General of Hospitals, who died at Edinburgh on the 21st ult., the following bequests are left:—£100 to the Edinburgh Infirmary; and the balance, after the payment of certain other legacies, to be equally divided among the Royal Infirmary (for the Building Fund), the Convalescent Hospital, the General Dispensary, the Hospital for Incurables, and Sheriff Watson's Industrial School, all in Aberdeen. The share of each institution participating in the residue, after payment of all the legacy duties, &c., will amount to upwards of £200.

ALCOHOL IN RELATION TO HEALTH.—Under the auspices of the Women's Union, C.E.I.S., four lectures to ladies upon the Medical Aspect of Alcohol in Relation to Health will be given on Nov. 8th, 15th, 22nd, and 29th, at 3.30 P.M. The first two by Dr. E. Symes Thompson, at 83, Lancaster Gate, W. The last two by Dr. Oliver Leeson, at the Vestry Hall, Kensington High-street.

THE DENTISTS ACT.—The Sheriff of Edinburgh has imposed a fine of £5 on a person charged with having, though not a registered dentist, during January last issued a circular in which he used words implying that he was registered under the Dentists Act, and having, during part of last year, a brass plate on his front door bearing the word "dentist"; and also by an advertisement implying that he was registered.

DUBLIN HOSPITAL SUNDAY.—The eleventh annual collection in aid of the Dublin Hospitals will take place on next Sunday, the 9th inst. The movement commenced in 1874 when a sum of £3306 was obtained, and during the ten years that it has been in operation the money contributed has amounted to £40,060, or an average of about £4000 a year. Of this sum £37,559 has been distributed among the various participating hospitals, showing that the cost of utilising the sums obtained causes an expenditure of about £200 a year, or five per cent. on the total.

THE PARKES MUSEUM.—The new session of the Parkes Museum will commence on November 13th, when Mr. G. J. Symons, F.R.S., will give a discourse on "The Relations between Meteorology and Hygiene," which will be illustrated by the instruments in use in a meteorological observatory. On November 27th Dr. Alfred Carpenter will read a paper "On the Advantages of Co-operation in the Progress of Hygiene," and on December 11th Mr. W. Eassie, C.E., will give a lecture "On Systems of Domestic Hot-water Supply." The meeting will commence on each evening at 8 P.M.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.—At the quarterly meeting of this Association, held at Bethlem Hospital on Wednesday, Nov. 5th, under the presidency of Dr. Rayner, Dr. Julius Mickle exhibited cases of aneurysm and Dr. Savage a case of localised brain disease. A paper by Mr. Bonville Fox, on "Exaltation in Chronic Alcoholism," adjourned from a previous meeting, was then taken and discussed in connexion with the kindred questions of insanity arising from the use of opium and Indian hemp. Dr. Savage read a paper on "Delirium Tremens Passing to Mania."

RADCLIFFE INFIRMARY, OXFORD.—At the quarterly court of the governors of this institution, held on the 29th ult., a report was presented from the Building Committee recommending extensive alterations and additions to the infirmary, the present wards being found deficient in size, light, and air. The architect's estimate of the cost was £5000, but it was advised that £7000 should be raised before the work was begun. The sum of £2500 will be received from the trustees of the fund raised for perpetuating the memory of the late Duke of Marlborough, and a munificent donor, whose name was not then divulged, has promised to pay half of the remaining cost. It was eventually agreed to refer the matter back to the Building Committee, to reconsider at what part of the infirmary buildings it would be most desirable to add a new block to contain forty beds, and the cost of such a block on two floors, and to report to a Special Court in November.

THE ORDER OF ST. JOHN OF JERUSALEM (ENGLISH LANGUAGE).—The annual report of this order, just published, gives a record of the general proceedings of the chapter during the past twelve months, and of the various special departments of the work, such as the St. John Ambulance Association; the award of medals for deeds of gallantry in saving life on land; the issue of diets to poor convalescents of hospitals in London and elsewhere, and the British Ophthalmic Hospital at Jerusalem, where the number of attendances for the year ending December last amounted to 11,343. There are also papers on the transport of the sick and injured, and on the ambulance arrangements of the metropolis on the outbreak of epidemics, read at the International Health Exhibition by Mr. John Furley and Mr. Barrington Kennett respectively, and a lecture by Baron Dr. Mundy, on the Necessity for Making Surgical Provision for Railway Accidents. The report of the St. John Ambulance

Association states that twenty-five new centres and numerous detached classes have been opened during the past year at home and abroad. During the year, 10,053 certificates of proficiency have been awarded—viz, 5621 to men and 4432 to women, making a grand total of about 82,000 certificates granted to date. Three courses of lectures have been held at six of the metropolitan police stations, and numerous meetings to aid the movement have been held. Instances are quoted in which medical men have testified to life having been saved and "first aid" otherwise efficiently rendered by certificated pupils, and the report concludes with details of the progress of the recently developed ambulance corps for the transport of the sick and injured, and an interesting narrative by Lady Brassey of Ambulance Work in the West Indies.

ACADEMY OF MEDICINE IN IRELAND.—The following office-bearers have been elected for the ensuing year:—President: J. T. Banks. General Treasurer: R. McDonnell. General Secretary: W. Thomson. Medical Section—President: F. R. Cruise. Council: J. H. Benson, G. F. Duffey, J. Magee Finny, T. W. Grimshaw, R. A. Hayes, Henry Kennedy, J. W. Moore, W. G. Smith, H. C. Tweedy. Secretary: Alexander Nixon Montgomery. Surgical Section—President: E. H. Bennett. Council: Wm. Colles, C. Coppinger, E. Hamilton, E. Dillon Mapother, E. Stamer O'Grady, W. T. Stoker, P. J. Hayes, H. R. Swanzy, Kendal Franks. Secretary: William Stokes. Obstetrical Section—President: Lombe Atthill. Council: J. A. Byrne, Professor Dill, A. J. Horne, J. R. Kirkpatrick, George H. Kidd, Arthur Macan, T. M. Madden, R. D. Purefoy, William J. Smyly. Secretary: William Cox Neville. Pathological Section—President: A. Foot. Council: P. S. Abraham, J. W. Beatty, A. H. Corley, Samuel Gordon, J. V. Lentaigne, T. E. Little, J. M. Purser, F. B. Quinlan, W. Stoker, J. B. Storey.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—At the October meeting of the Faculty, the following list of office-bearers for the year was declared:—President: Dr. Andrew Fergus. Visitor: Dr. Henry Muirhead. Councillors: The President, *ex officio*; the Visitor, *ex officio*; the Treasurer, *ex officio*; Dr. R. Scott Orr, Dr. T. Lapraik, Dr. Jas. Christie, Dr. R. Perry, and Dr. J. Morton. Treasurer: Dr. J. D. Maclaren. Honorary Librarian: Dr. James Finlayson. Vaccinator: Dr. Hugh Thomson. Board of Examiners: Dr. A. Lindsay, Chemistry; Dr. Hugh Miller, Midwifery; Mr. H. E. Clark, Anatomy; Dr. James Stirton, Midwifery; Dr. J. Wallace Anderson, Medicine and Materia Medica; Dr. P. A. Simpson, Medical Jurisprudence; Dr. James Dunlop, Surgery and Surgical Anatomy; Mr. David C. M'Vail, Physiology; Dr. Alex. M. Buchanan, Anatomy; Dr. H. C. Cameron, Surgery and Surgical Anatomy; Dr. William J. Fleming, Physiology; Dr. William Macewen, Surgery and Surgical Anatomy; Dr. Robert Perry, Chemistry; Dr. Samson Gemmell, Medicine and Materia Medica; Dr. Eben Duncan, Medical Jurisprudence and Hygiene.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

ALLRIGHT, FRED. WILLIAM, L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer and Public Vaccinator for the Woodburn District of the High Wycombe Union, vice Warren.

BLACKER, ERNEST, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer to the Workhouse, Clutton Union, vice Perrin, resigned.

COLLIER, M. P. MAYO, M.B.Lond., F.R.C.S.Eng., has been appointed Assistant-Surgeon to the North-West London Hospital.

COLTART, WILLIAM WILSON, L.R.C.P.Lond., M.R.C.S., has been re-appointed Medical Officer and Public Vaccinator for the Headley District of the Epsom Union.

COX, WILLIAM ALFRED, M.R.C.S., L.S.A.Lond., has been reappointed Medical Officer for the Banstead District of the Epsom Union.

DURHAM, FREDERIC, M.B.Lond., F.R.C.S.Eng., has been appointed Senior Surgeon to the North-West London Hospital.

DWYER, F. CONWAY, M.D., B.Ch.Dub., has been appointed House-Surgeon to the Mater Misericordiæ Hospital, Dublin, vice Cruise, resigned.

GORDON, JAMES, M.D., L.R.C.S.Ed., has been appointed Parochial Medical Officer for Aberdeen, vice McCrombie, deceased.

HALL, W. WINSLOW, M.B., C.M.Ed., has been appointed Resident Medical Officer to the Kilburn, St. John's-wood, and Maida-vale General Dispensary.

HAYDEN, W. G., L.R.C.P.Lond., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Bishopstone District of the Wilton Union, vice Jones, resigned.

HEWITT, FREDERIC W., M.B.Cantab., M.R.C.S., has been appointed Administrator of Anæsthetics to Charing-cross Hospital.

HOOD, DONALD WILLIAM CHARLES, M.D.Cantab., M.R.C.P.Lond., has been appointed Senior Physician to the North-West London Hospital.

JENNINGS, CHARLES EGERTON, F.R.C.S.Eng., has been appointed Assistant-Surgeon to the North-West London Hospital.

KOCH, W. V. M., M.B., C.M.Ed., has been appointed Assistant Medical Officer to the Hull Borough Asylum.

MACKINTOSH, GEORGE DOUGLAS, L.K.Q.C.P.I., has been appointed Medical Officer for the Sixth District of the Market Harborough Union, vice Macaulay.

MARTIN, THEODORE, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Camley District of the Clutton Union, vice Perrin, resigned.

MENZIES, J. HERBERT, M.R.C.S., L.S.A.Lond., has been appointed House-Surgeon to the West London Hospital.

PEDLEY, FREDK. NEWLAND, M.R.C.S., L.D.S., has been appointed Dental Surgeon to the North-West London Hospital.

SHAW, JOHN, M.D.Lond., M.R.C.P.Lond., has been appointed Senior Assistant-Physician to the North-West London Hospital.

STEELE, RICHARD, L.R.C.P.Ed., M.R.C.S., has been appointed Visiting Medical Officer for the Cottage Homes for Children, Leicester Union.

TAYLOR, ALFRED EVERLEY, L.R.C.P.Ed., L.R.C.S.Ed., L.S.A.Lond., has been appointed Second Assistant Medical Officer to the County Asylum, Stafford, vice W. E. Ranson, M.R.C.S., L.S.A.Lond., resigned.

TREVES, EDWARD, M.R.C.S., has been appointed additional Honorary Surgeon to the Throat and Ear Dispensary, Brighton.

Births, Marriages, and Deaths.

BIRTHS.

EXHAM.—On the 13th ult., at Lucknow, the wife of Surgeon-Major R. Exham, Medical Staff, of a son.

HALEY.—On the 27th ult., at Claremont House, Market-street, Wakefield, the wife of W. H. Haley, L.R.C.P. &c., of a daughter.

HICKLING.—On the 24th ult., at Malta, the wife of T. Hickling, Surgeon, Q.G.S., of a son.

KINCH.—On the 28th ult., at Ash, Sandwich, the wife of G. H. Kinch, M.R.C.S., L.R.C.P.Ed., of a daughter, stillborn.

LACY.—At The Cottage, Sunninghill, Ascot, the wife of A. Gairdner Lacy, L.R.C.P.Lond., M.R.C.S., of a son.

MEYERS.—On the 27th ult., at Richmond Villa, Lordship-lane, Wood-green, the wife of Herbert H. Meyers, L.R.C.P., M.R.C.S., of a daughter.

PAYNE.—On the 31st ult., at Wimpole-street, Cavendish-square, the wife of Joseph Frank Payne, M.D., of a daughter.

TEW.—On the 27th ult., at Bulwell, Nottingham, the wife of James Scott Tew, Surgeon, of a son.

WILLIAMSON.—On the 1st inst., at Settle, Yorks, the wife of Richard Ernest Williamson, M.B., of a daughter.

MARRIAGES.

BLOUNT—PLEYDELL.—On the 4th inst., at All Saints', Margaret-street, by the Rev. John D. Baily, Arthur Blount Blount, M.R.C.S., L.R.C.P., L.S.A.Lond., elder son of James William Blount, of the Priory, Penge, to Isabel Constance, only daughter of John Cleave Pleydell, of Holford-square, London.

LANE—BRISCOE.—On the 25th ult., at Christ Church, Wanstead, William Arbuthnot Lane, M.S., F.R.C.S., of St. Thomas's-street, S.E., eldest son of Brigade-Surgeon B. Lane, to Charlotte Jane (Lottie), youngest daughter of the late John Briscoe, Esq.

MAXWELL—SUCKLING.—On the 29th ult., at the Parish Church, Edgbaston, Warwickshire, by the Rev. G. F. B. Cross, assisted by the Rev. J. Canning, Patrick William Maxwell, M.B., M.R.C.S., of 10, Lower Mount-street, Dublin, to Elizabeth Catherine, daughter of Cornelius Beeson Suckling, M.D.

OSBORN—BOYD.—On the 30th ult., at St. George's, Hanover-square, Sam Osborn, F.R.C.S., of Datchet, and Maddox-street, W., to Elizabeth, youngest daughter of the late Robt. Boyd, F.R.C.P., of Southall-park, Middlesex, and Bolton-row, Mayfair.

TAYLOR—MANBY.—On the 31st ult., at the Parish Church, East Rudham, Norfolk, Fredk. Taylor, M.D., F.R.C.P., of St. Thomas's-street, Southwark, eldest surviving son of David Tayler, M.R.C.S., to Helen Mary, younger daughter of Frederic Manby, M.R.C.S., of East Rudham.

DEATHS.

BROWN.—On the 23rd ult., at Rochester, John Dan Brown, M.D.Ed., aged 66.

BURTONSHAW.—On the 21st ult., at De Beauvoir-road, N., Thomas Burtonshaw, M.R.C.S., aged 32.

KAY.—On the 21st ult., drowned while bathing at Mablethorpe, Alfred Kay, L.R.C.P.Ed., L.R.C.S.Ed., of South Lincolnshire, aged 34.

LUMGAIR.—On the 1st inst., at Largo Cottage, George Lumgair, M.D., L.R.C.S.E., J.P. for Fifeshire.

RANSOM.—On the 4th inst., Peter Parlett Ransom, for thirty-eight years Surgeon at North Elmham, Norfolk, after a few days' illness, aged 64.

RIMELL.—On the 3rd inst., at Eardley-crescent, South Kensington, Thomas William Rimell, L.R.C.P.Ed., M.R.C.S., late R.N., aged 84.

ROGERS.—On the 27th ult., at The Strand, Exmouth, Nathaniel Rogers, M.D., in his 77th year.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, November 6th, 1884.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp.	Rain fall.	Remarks at 8.30 A.M.
Oct. 30	30·29	W.	54	52	..	59	45	..	Overcast
Nov. 1	30·14	S.	52	51	..	56	48	..	Overcast
,, 2	30·03	S.W.	55	53	..	60	49	..	Cloudy
,, 3	30·12	N.E.	44	42	..	50	42	·26	Hazy
,, 4	29·95	S.E.	49	48	..	58	41	..	Foggy
,, 5	29·92	W.	54	51	..	52	47	·02	Fine
,, 6	30·02	S.E.	50	50	..	52	49	·42	Raining

Medical Diary for the ensuing Week.

Monday, November 10.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. de Havilland Hall: A Case of Surgical Scarlet Fever (postponed).—Mr. Rogers-Harrison: A Case of Spontaneous Amputation.—Dr. Carrick: The Manufacture and Uses of Koumiss in Russia.

Tuesday, November 11.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 P.M., and Thursdays at 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8 P.M. Mr. Francis Galton, F.R.S.: The Anthropometric Laboratory at the late Health Exhibition.—Mr. H. O. Forbes, F.Z.S.: Ethnological Notes on the People of the Island of Buru.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Dr. Champneys: Expiratory Emphysema—that is, Emphysema of the Neck, occurring during Labour and during Violent Expiratory Efforts; an Experimental Inquiry.

Wednesday, November 12.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays, at 1.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.—Skin Department: 9.30 A.M., on Tuesdays and Fridays.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations 2½ P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
HUNTERIAN SOCIETY.—7.30 P.M. Council.—8 P.M. Dr. Collie: Observations on the Diagnosis of Small-pox.—Dr. Turner: A Case of Suppuration of Simple Fracture of Rib, with Remarks on the Etiology of Inflammation.
ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Mr. G. Massee: Life History of Milowia Nives.—Professor F. Jeffrey Bell: Structural Characters of Spines of Echinoides. I. Cidaridæ.—Mr. T. B. Rosseter: The Gizzard of Larva of Corethra Ptamicornis.—Dr. J. D. Cox: Structure of the Diatom Valve.—Mr. Lewis Wright: New Lantern Microscope.
EPIDEMIOLOGICAL SOCIETY OF LONDON.—8 P.M. Inaugural Address by the President (Dr. Norman Chevers): Certain Rare Epidemics and Endemics.

Thursday, November 13.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.
OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—2 P.M. Mr. Jonathan Hutchinson, F.R.S.: The Relation of Gout to Eye Disease (Bowman Lecture).

Friday, November 14.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
CLINICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Stephen Mackenzie: Cases of Dysentery treated by Voluminous Injections of Nitrate of Silver.—Mr. Morrant Baker: Three Cases of Joint Disease in connexion with Locomotor Ataxy.—Dr. H. B. Donkin: A Case of Muscular Atrophy and Joint Disease.—Dr. Hale White: A Case of Tumour of the Frontal Lobe with very few symptoms.—Living Specimens: A Case of Favus, by Mr. Malcolm Morris. Cases of Joint Disease illustrating Mr. Baker's and Dr. Donkin's papers will be present, and perhaps others.

Saturday, November 15.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

TO OUR CONTRIBUTORS.

WE do not propose to publish this year a list of intending contributors to our volumes for 1885. The response to our annual circular has in the past been so liberal that we have with difficulty been able to keep pace with the supply of papers and communications with which we have been favoured. We shall be glad, however, to receive, for private record, the names of medical officers of public institutions, as well as of physicians and surgeons in private and general practice, who are desirous of furnishing us with clinical lectures and reports of cases of interest for our forthcoming volumes.

ANÆSTHETICS IN DENTAL PRACTICE.

A Junior.—Nitrous oxide gas has been proved beyond all doubt to be the safest of anæsthetics in the hands of skilful administrators. The only drawbacks to its use are the shortness of its effect and the costliness of the necessary apparatus; but for anæsthesia during tooth extraction nothing can be simpler or better. Complete instructions as to its use for this purpose will be found in Coleman's Manual of Dental Surgery; but a few visits to a hospital where it is frequently given would be the best means of learning to administer it safely.

A Young Practitioner.—The case should be treated by dilating, and then, if necessary, curetting the whole of the inner surface of the uterine cavity.

Spes.—See Bellamy's Surgical Anatomy.

Enquirer.—Our correspondent should put Mr. So-and-So, appending his titles.

STRANGE MIGRATION OF A NEEDLE.

To the Editor of THE LANCET.

SIR,—About the end of November, 1833, a lady called upon me, stating that the greater portion of an ordinary sewing-needle had broken in the first joint of her left thumb. I remember having felt the needle point, and, after ineffectual attempts at its extraction, having advised my patient to let it alone, lest the attempt to remove it might result in greater injury to the joint. A few days ago the patient called upon me to inform me that a day or two previously she felt a pricking sensation in the right forefinger, and, having broken the skin, she without difficulty removed the greater portion of the lost needle from the point of the finger. The point of it was quite clear, the remaining portion rusty. Of all the strange journeyings of needles in the flesh this is the strangest which has fallen under my observation.—Yours truly,

Glasgow, Nov. 3rd, 1884. D. CAMPBELL BLACK.

Mr. Leonard.—Compliance with the request would, we fear, lay us open to too many applications of a similar kind.

Dr. Golaub Sing.—The pamphlet has been received.

M.B. EXAMINATION, UNIVERSITY OF LONDON.

To the Editor of THE LANCET.

SIR,—The following question is one of six in Midwifery and Diseases of Women submitted to the pass candidates at the examination which is now being held at Burlington-gardens:—"Give the anatomy and treatment of a case of unilateral hæmatokolpos (retention of menses)." May I be allowed to ask you, Sir, if this condition, "unilateral hæmatokolpos," is so frequently met with that every pass M.B. candidate should be supposed to have met with it, and to know all about it? Or is it merely an ingenious crux that has been set by a dyspeptic examiner?

I am, Sir, yours faithfully,

Nov. 5th, 1884. IGNORAMUS.

THE KING OF ITALY'S CHOLERA TOUR.

THE following inscription, from the pen of Professor Domenico Gnoli, will be inscribed on the tablet about to be placed in the Capitol in commemoration of King Humbert's visit to cholera-stricken Naples:—

S. P. Q. R.
A RICORDARE AI POSTERI
CHE RE UMBERTO I
NEL SETTEMBRE DEL 1884
ACCORREVA A NAPOLI
AFFLITTA DA EPIDEMIA COLERICA
RECANDO NEGLI OSPEDALI E NE' TUGURI
CORAGGIO, CONSOLAZIONE, SOCCORSO
E VI RESTAVA FINCHÈ IL MORBO NON DECLINASSE
FRA LE BENEDIZIONI DI TUTTA ITALIA
PER LUI TREPIDANTE,
ROMA
LIETA DI RISALUTARLO INCOLUME,
SUPERBA DEL SUO RE,
INTERPRETE DELLA RICONOSCENZA UNIVERSALE
POSE.

(*Translation.*)

THE ROMAN SENATE AND PEOPLE.
TO RECORD TO POSTERITY
THAT KING HUMBERT I.
IN THE SEPTEMBER OF 1884
HASTENED TO NAPLES,
IN HER AFFLICTION FROM EPIDEMIC CHOLERA,
BRINGING INTO HER HOSPITALS AND HOVELS
COURAGE, CONSOLATION, RELIEF,
AND, UNTIL THE SCOURGE ABATED, REMAINED THERE
AMID THE BLESSINGS OF ALL ITALY
TREMBLING FOR HIM.
ROME,
REJOICING TO SALUTE HIS SAFE RETURN,
PROUD OF HER KING,
INTERPRETING THE UNIVERSAL GRATITUDE,
PLACED THIS TABLET.

Truth.—The amended circular on the subject of examination previous to promotion having removed what appears to us to have been the principal objection to that measure, we do not think it necessary to publish our correspondent's letter. We would refer him to the annotation on the subject in our last number.

Octavius has not enclosed his card.

M. D.—How can a person rightly add "M.D." to his name when he does not possess that degree?

OPENING THE TRACHEA.

To the Editor of THE LANCET.

SIR,—Such sad occurrences as the deaths of Drs. Foulis and Rabbeth must force upon the medical profession the question of right and wrong in the treatment of diphtheria by tracheotomy. It is a very grave question whether the stimulus to heroism given by so brilliant an example is worth the sacrifice of so much cultured energy. I have not yet heard of a child's life having been saved, but I have heard of several good men having sacrificed themselves. Even the performance of the operation is often a question of doubt, and a painful question for a surgeon to decide. In those cases which have come under my notice I have explained the case as fairly as I could to the parents, and I only urged an operation strongly in one case. It has appeared to me that when there are signs of bronchial, and more especially pulmonary, mischief (and very often there are), opening the trachea would be merely palliative treatment, and would only prolong a consciousness which deficient oxygen and blood-poisoning had almost abolished. Out of six cases which I saw during an epidemic in this place only one appeared to me to be a fair case for tracheotomy, there being slow development of the disease, which seemed purely laryngeal for days. In that case the parents refused the operation. A suction syringe to fit a tracheotomy tube might easily be a part of a tracheotomy case; but in many cases would it not be better to use no tube at all, simply dilating the tracheal opening? A freer vent would apparently be thus given to false membranes. Mr. Eddowes performed tracheotomy in one of my cases, and we had great difficulty in keeping the tube clear from the very tenacious secretion. Boiling water only would remove it. The whole question is full of difficulties, and every case must be modified by individuality and surrounding circumstances; but a discussion of the matter in your columns might do much to instruct and assist.—Yours truly,

Loughboro, Oct. 24th, 1884. J. B. PIKE, F.R.C.P.E., M.R.C.S.E.

To the Editor of THE LANCET.

SIR,—In the performance of tracheotomy for diphtheria, would it not be well to have at hand a twenty- to thirty-ounce bottle, exhausted as for aspiration, fitted with a rubber cork, the free extremity of the attached tube having something twisted round it to make it fit tightly the lumen of the tracheotomy tube—a piece of rubber tubing, for instance? The turning of the proper stopcock would answer in place of the hazardous suction which has already cost our profession so dear. Should this not clear the tube it would at least bring the obstructing membrane within reach of forceps.—I am, Sir, yours faithfully,

Oct. 27th, 1884. A. D. M.

AREA AND POPULATION OF NEW SOUTH WALES CONTRASTED.

FROM information issued from the Immigration Office, New South Wales, it appears that, giving a square yard as standing-room to one individual, the whole population of the Colony could be placed on a little over 156 acres, or less than a quarter of a square mile, and the area of the Colony is 316,320 square miles in extent. The density of the population of England is nearly 400 to the square mile, giving only about an acre and a half to each individual; while there are nearly 270 acres to every man, woman, and child in New South Wales, which, if as densely populated as England, would have a population of about 135 millions.

W. B. T.—We are unable to give our correspondent a definite answer to his question, or the reference which he desires. But it has long been a popular, though probably groundless, belief that the wearing of ear-rings is beneficial to the eyesight.

Mr. Mercer (Bath).—The paper has been received.

Medicus (Dublin).—On our second page of contents will be found a reference to the vacant appointments advertised in our columns.

"THE VENTILATION OF DRAINS AND SEWERS BY SHAFTS."

To the Editor of THE LANCET.

SIR,—I read with some interest, in your issue of Oct. 11th, an article under the above heading. On many points I agree with the opinions therein expressed; but I cannot admit that the evils which undoubtedly obtain are chiefly owing to the line adopted by "engineers" and "other professional men." The folly referred to, when practised "for the sake of a little economy," emanates almost invariably from the "owner or authority," who does not properly appreciate the money value of proper precautions in sanitary matters, and is not brought about by the engineer, who can have no possible interest in undue or false economy.

Having reference to the ventilation of public sewers, it is well understood that where sewers are properly designed and adequately supplied with means of flushing, very little effluvium, and less, if any, poisonous gas, will exude from the surface ventilators. Some engineers are to blame for being too easily satisfied with sewer velocities inadequate to ensure the rapid passing away of the foul matters before putrefaction sets in and gas is generated. To proper falls in the sewers must be added a plentiful supply of water to work them, or stagnation of sewage, the prime origin of the evils complained of, will result. Water in proper quantities not only ensures a sufficient flow to obtain in practice the theoretical velocity due to the particular size and gradient of the sewer, but, by lowering the temperature of the sewage and of the air in the sewer, it checks or delays the progress of putrefaction.

Admitting all this, however, it is to be feared that in practice sewers will continue to be so laid and dealt with as to produce noisome odours, if nothing worse; and it has long been apparent that something better than simple unaided ventilation at surface level should be adopted. The increased safety afforded by high ventilators over surface ventilators may be taken as unquestioned by engineers, but in attempting anything like a general introduction of the system they are brought face to face with a considerable difficulty. Engineers abreast of the age recommend ample surface ventilation, supplemented where practicable by high-level outlet ventilators; but the real bar to the wider adoption of a safer and better system of ventilating public sewers is the absence of statutory power to enable local authorities to place such shafts on private property, and the objection evinced by houseowners to ventilating-shafts being attached to their buildings.

It is not easy to suggest a sufficient remedy without risk of interference with private rights; but if the powerful influence of THE LANCET were successfully exerted to obtain such an amendment of the Public Health Acts as to vest in sanitary authorities the necessary powers to render high-level ventilation practicable, sanitary science and the resources of engineers would, I venture to say, be found equal to the rest. The most thorough system of ventilation for sewers would be effected by forming them of a trough open up to the surface level. The introduction of this system has hitherto been precluded by considerations of expense. It is, however, possible to arrange a design of this nature at a cost not altogether beyond the range of possibility, and a material saving in many items of construction would be effected. There is undoubtedly far greater danger in sewer gas reaching the inside of houses than can obtain from gas dispersed in the open air of the streets; and, moreover, air or gas forced into a house in consequence of insufficient ventilation is obviously far more noxious than that emanating from a sewer freely ventilated. Public sewers must be ventilated to no less a degree than by the systems now in vogue, and if high shafts are to be entirely substituted for surface ventilators, they must be of such adequacy as to ensure no more pressure being exercised than at present upon the main intercepting trap between the public sewer and houses, and no less frequent change of air being in the sewer. To enable this to be done, the public must either submit to the somewhat novel, though unobjectionable, shaft being placed on their property, or pay the extra cost entailed by putting up shafts otherwise sustained. While, however, we are waiting for necessary powers, the most should be made of present circumstances. With proper care sewers may be so designed as to render the nuisance arising from surface ventilators very slight, and any actual danger remote.

I am, Sir, your obedient servant,

URBAN SMITH, A.M.I.C.E.

Westminster-chambers, S.W., Oct. 27th, 1884.

BEST COPY AVA

VACCINATION IN TENNESSEE.

WE are much obliged to Dr. C. C. Tite (!) of the Hermitage Club, Nashville, Tenn., for his admirable letter on the question of vaccination, as presented to his mind in the epidemics of Tennessee. It entirely coincides with the experience of all sensible men in all communities, and, indeed, is a repetition of what is monotonously found everywhere. The letter should be published broadcast, but would be superfluous to the readers of THE LANCET. It shows that even if there were no Compulsory Vaccination Act, there is another force to drive men to the vaccination station more imperious still—viz., the terrible disease of small-pox, from which it is the only protection, perfect or imperfect, according as it is done perfectly or imperfectly.

Dr. Jas. Wilson.—1 and 2. The idea entertained by hairdressers is that the hair is a hollow structure, and the cutting of the ends causes them to "bleed" nutriment, and that singeing stops this and "heals" the ends.—3. The operation is founded on an entirely mistaken idea of the structure of the hair.—4. It is of modern introduction, and originated outside the profession.

Mr. E. Cheshire.—The notice appeared in THE LANCET of Oct. 25th, page 758.

THE LATE DR. RABBETH.

To the Editor of THE LANCET.

SIR,—Sir Wm. Gull, in commenting on the heroism and subsequent sad fate of the late Dr. Rabbeth, suggested that a memento of his devotion should be perpetuated by annually presenting a medal to some distinguished Bachelor in Medicine of London University.

May I suggest that those who are known to have previously performed an exactly similar act of bravery and humanity, and without thought of recompense or recognition, should at least be also considered worthy recipients of such an honour? A case occurs to my recollection, very similar, except in the subsequent results, to that which was performed by Dr. Rabbeth. It was about the year 1868. I had to perform tracheotomy in a very urgent case of laryngeal diphtheria. While dividing the rings of the trachea a small vessel from the edge of the wound began to bleed rather freely, blocking up the windpipe, and threatening immediate suffocation. Mr. Arthur H. Sandiland, then a student at St. Bartholomew's Hospital, who was assisting myself and partner, Dr. F. H. Daly, in the operation, with a promptitude and coolness which elicited the admiration of all present at the time, at once seized a tube or pipette, and cleared the windpipe by suction, so that the tube could be inserted, thus probably prolonging the life of the little patient in apparent comfort for several days. My late partner and myself have often since referred to the cool courage and unselfish heroism of Mr. Sandiland, conduct which will be regarded by those who know him as quite characteristic of the man.—I am, Sir, yours truly,

Kingston, Nov. 4th, 1884. GEORGE MUNDIE.

A MEDICAL HERO.—DR. RABBETH.

In trying to save a patient's life he lost his own.
No nobler gift at heaven's gate
Could mortal ever give;
Angels, approving, whispered,—
"He died that she might live!"
And though our hopes are broken,
And mothers weep full sore,
We pray that both are happy—
Not lost, but gone before.

Cley-next-Sea, Norfolk, Nov. 4th, 1884. W. SUMPTER, M.D.

M.R.C.S.E., J.P., &c.—A reference to our issue of Aug. 9th last will show that the name mentioned has been removed from the roll of the Royal College of Surgeons of England.

Mr. H. L. Albert.—We cannot find space for the continuation of the discussion.

SANITARY CONDITION OF CANNES.

To the Editor of THE LANCET.

SIR,—My early arrival at Cannes has enabled me during the last week to visit the whole of this health resort, and it is with pleasure and satisfaction that I am able to give you a favourable account of the sanitary condition of this locality. The streets, squares, and quais are perfectly clean, being constantly swept and watered. The street gulleys are most of them trapped, and the openings are painted with a thick coating of chloride of lime. The narrow streets I have also visited, and find that many of the houses are being whitewashed and painted. The hotels and villas are for the most part cleaned, and prepared to receive visitors, while some of the former are still in the hands of the painters and whitewashers. The gardens are being weeded and made tidy. On visiting the hotels the first subject mentioned, and spoken of with much pride, was the new arrangements for drainage; and I was glad to see the stamp of English manufacturers on the sanitary appliances, which were in perfect working order. The change for the better since my visit to Cannes four years ago is very great. No doubt the typhoid scare of three years ago has done a vast amount of good to Cannes and its inhabitants, and, what is still better, they all recognise it. The weather is very fine; bright sun, blue sky, with the thermometer steady at 65° F. A few good showers of rain are required, to wash the dust from the trees and brighten up the general aspect.

I am, Sir, yours truly,

Cannes, Oct. 29th, 1884. G. H. BRANDT, M.D.

Gorgias.—Sect. 20 of the Births and Deaths' Registration Act, 1874 (37 and 38 Vict., Cap. 88), enacts: "In case of the death of any person who has been attended during his last illness by a registered medical practitioner, that practitioner shall sign and give to some person required by this Act to give information concerning the death a certificate stating to the best of his knowledge and belief the cause of death." In the face of this enactment it must be clearly illegal to charge a fee for supplying a certificate which the Act declares shall be furnished. Moreover, it may be presumed that such a fee would only be paid by those who are unaware that the Act entitles them to have the certificate, for the purpose of the Registration Act, without the payment of fee or reward.

Dr. Jas. Russell (Glasgow).—The publication of the correspondence forwarded to us would probably bring about a controversy for which we have not space.

Mr. Nolony (Slingsby).—Yes.

Mr. J. Barnes.—Cassell's Domestic Medicine; Wood's Household Practice of Medicine.

Mr. Henry Crosse.—We regret we cannot afford the desired information.

WASHING OUT THE BLADDER.

To the Editor of THE LANCET.

SIR,—Mr. G. B. Browne suggests, in your issue of the 18th ult., a means of washing out the bladder by the use of an ordinary indiarubber pump. I beg to mention a method first adopted by myself in a case of malignant disease, and found very convenient—viz., an indiarubber tube, such as is used for infants' feeding-bottles, only about eight feet long. One end may be attached to the plug, A B, described by Mr. Browne, and the other end passed over a small tube fixed in a leaden weight of two or three ounces. This weight may be placed in a small pail containing the medicated solution hanging by a cord passed through a hook in the ceiling. By means of a cord the reservoir may be raised or lowered, thereby increasing or diminishing the force of the stream. The patient is free to move about within certain limits, and the hands are more free; in a sensitive organ there is less danger of causing pain from movement of the instrument; the flow may be arrested by simply pressing the indiarubber. The stream, after the weight and reservoir are in position, may be readily caused to flow by rolling a bottle over a few inches of the tube towards the opening of exit. There is nothing startling in the above method; and although I have never seen it used but by myself, I do not claim any great originality in it. A trial of this cheap apparatus with a "double tube" catheter will prove its efficiency.

I am, Sir, yours truly,

Oct. 27th, 1884. BEAVER.

A RARE CASE.

To the Editor of THE LANCET.

SIR,—There is at present in this asylum a male patient who is mentally the subject of chronic mania, and physically suffering from phthisis (left lung). For several months past there has been a persistent, distressing cough, and the daily amount of expectoration has been enormous. About a week ago a small abscess appeared between the sixth and seventh ribs, just external to the nipple-line, the contents of which had very soon a free outlet without the aid of a bistoury. It was evident it had a direct communication with the pleural cavity, and over a pint and a half of grumous material escaped from the pleural space when the abscess opened, and small quantities continue to ooze from the sinus when the dressing is changed. There is now no cough or expectoration, and the patient has gained strength.

I shall be pleased to know if any of your readers have met with a similar case. I am, Sir, yours truly,

Dorset County Asylum, Oct. 28th, 1884. P. W. MACDONALD, M.B.

Mr. J. W. Sheppard and *Subscriber.*—The treasurer is Dr. Claye Shaw, Banstead Heath Asylum.

Mrs. C. E. Field.—We cannot interfere in the case.

"AN APPEAL TO PUBLIC VACCINATORS."

To the Editor of THE LANCET.

SIR,—Dr. Scoresby-Jackson does not seem to be aware that there has been an official declaration of the area of scar to be produced by primary vaccination, and that this may be obtained by any number of insertions the vaccinator may deem sufficient. The Board inspectors require an area of half a square inch, which is about the size of a sixpence. In practice I have found three free insertions sufficient; and as I received two grants for successful results while I was a public vaccinator in a country district some years ago, I conclude that my method was sufficiently effectual to satisfy the experienced eye of the inspector. I may add that I have never seen an attack of small-pox in any case in which I had performed primary vaccination with such results as above given.

I am, Sir, yours truly,

Nov. 3rd, 1884. JAMES THOMPSON, M.D.

OBJECTIVES.

To the Editor of THE LANCET.

SIR,—In opticians' list of objectives there are often several of the same power, but at different prices, some being even twice as much as others. May I ask your correspondent, Dr. Griffin, who seems to have gone into the subject closely, whether the value of an objective to a practical worker is in mere proportion to the price; or which class would be most serviceable for histological work?—Yours obediently,

Oct. 28th, 1884. A STUDENT.

BEST COPY AVAILABLE

Dr. Ormsby.—As we did not give currency to any of the statements of which our correspondent complains, we do not feel called upon to insert his long explanatory letter. If he has been misrepresented, he should address his disclaimer to the journal in which the previous letter and the commentaries upon it appeared.

Mr. Gem.—The report will appear in our next.

Mr. Pike (Loughborough).—Yes.

THE PRELIMINARY EXAMINATION.

To the Editor of THE LANCET.

SIR,—I hope the medical profession as a body will condemn Dr. Haughton's scheme for the Medical Preliminary Examination, which has made a ridiculously easy examination more easy still. The idea of being able to pass an examination with so simple and few subjects bit by bit is absurd. As it was, at the College of Preceptors many boys of twelve could have passed it with ease. Last year I knew men who, knowing no Latin before, and with very little other education, passed it with a few weeks' cramming. Now our examination will be easier than that of the F.P.S Glasgow or the Edinburgh Preliminary, for they do insist on having two books of geometry. I know a man go up to Scotland and pass in English only. The next time he crammed up and passed in Euclid, the next time in algebra and arithmetic, the fourth time in Latin, and the fifth time in chemistry. Thus, counting mathematics as one subject, he went up five times for four subjects; and this is what London is imitating. Alas, to what depths will the medical profession sink! I am, Sir, yours obediently,

Brixton, Oct. 29th, 1884. B.A.

Alpha.—The Handbook of the St. John Ambulance Association; Esmarch's Lectures, or those of Wetherly.

THE M.D. DEGREE.

To the Editor of THE LANCET.

SIR,—I am in receipt of a letter from W. K. Hilton, Esq., M.A., of the University of Durham, informing me that at present that university is not desirous of any change in its regulations for the admission of practitioners to examination for its M.D. degree without residence. I am sure this decision will be received with regret by a large number of your readers. We can only hope that this may not be the final result.

I am, Sir, your obedient servant,

Leigh, Nov. 1st, 1884. B. JONES.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir Spencer Wells, London; Sir E. Lechmere, London; Dr. Sydney Ringer, London; Dr. Althaus, London; Dr. Scattergood, Leeds; Mr. E. Cheshire, Birmingham; Dr. Sinclair, Dundee; Mr. G. Ellis, London; Dr. Battams, London; Dr. Bradley, London; Mr. Evershed, London; Dr. Jas. Wilson; Dr. Buck, Leicester; Mr. St. V. Mercier, London; Dr. M'Munn, London; Dr. Kesteven, Enfield; Dr. C. T. Aveling, Clapton; Dr. Boyd, Dublin; Mr. Saffield, Birmingham; Dr. Buchan, Plymouth; Mr. T. S. Ellis, Gloucester; Dr. Smyth, Belmont; Mr. A. Drysdale, Mentone; Mr. Gem; Mr. Mark Hovell, London; Mr. H. Lee, London; Dr. Crutchley; Dr. Railton, Old Trafford; Dr. Dukes, Rugby; Mr. Jones, Leigh; Dr. Golant Sing, London; Dr. Hudson, Leeds; Dr. Gaston, Atlanta; Mr. C. C. Will, Nashville; Professor G. Waters, Bombay; Mr. Enaworth, London; Mr. Barwell, London; Dr. Adam, Foochow; Dr. Campbell Black, Glasgow; Dr. Paramore, London; Mr. Molony, Slingsby; Dr. Blakie Smith, Aberdeen; Mr. Wood, Southgate; Mr. D. S. Shroff, Calcutta; Mr. E. J. Simpson, Assam; Mr. Leonard; Mr. Danscombe, Liverpool; Mr. Atkinson, Cambridge; Dr. Gordon Holmes, London; Mr. W. Salter; Mr. W. F. Jebb, London; Dr. Fenwick, London; Mr. A. J. Harvey; Mr. Mitkinson; Mr. T. Clarke, London; Dr. J. B. Russell, Glasgow; Dr. T. R. Lewis, Bywood; Dr. Kinkead, Godway; Mr. L. Humphry, Cambridge; Dr. Ormsby, Dublin; Mr. E. D. Bauer; Mr. Pike, Loughboro'; Mr. Mercer, Bath; Messrs. Figgins and Co., London; Dr. C. S. Taylor, London; Dr. Herbert Snow, London; Dr. J. Thompson, London; Mr. Smith, Aldershot; Messrs. Hinton and Co., London; Mr. Stevens, Biggleswade; Mr. Grant; Dr. Owen, Liverpool; Dr. Thomson, Newport; Mr. Mears; Mr. Reginald Harrison; Mr. Carey, Church Stretton; Messrs. Kirby and Co., London; Messrs. Mottershead and Co., Manchester; Mr. Murchison, Strathcoman; Messrs. Wilkinson and Co., London; Dr. Hall, London; Messrs. Boulton and Paul, Norwich; Mr. Lewis, Leeds; Dr. Owen, Liverpool; Mr. Sawyer, London; Mr. Juler, London; Messrs. Southall and Co., Birmingham; Mr. Constable, Cambridge; Messrs. Burgoyne and Co., London; Dr. Campbell, London; Mr. H. L. Albert, London; Messrs. Burghope and Co., Burnley; Mr. Reynolds, Castle Donington; Dr. Harley, London; Dr. Burns, Hampstead; Mrs. Clark, Tunbridge Wells; Mr. Eddan; Mr. Gensen, London; Mr. Griffith, Carnarvon; Mr. Cowlham, Glasgow; Dr. Auld; Mr. Craske, Kentish Town; Dr. Tibbits, London; Mr. Cornish, Manchester; Miss McKie, Manchester; Mr. Clement Hawkins, Cheltenham; Mr. Lucien Howe, Berlin; Dr. W. Allen, Ladgate; Mr. Dobson, Clifton; Dr. Mundle; Mr. Eddowes; Dr. Rayner, Hanwell; Messrs. Barker and Son, London; Dr. C. J. Aveling, London; In Morsu Diaboli; Nemo, Liverpool; Viator; Ajax; Jam Satis; A Young Practitioner; A. M.D.; Vibrio; Truth; G.; Spes.; Memb. Brit. Med. Assoc.; Miss S., Boulogne-sur-Mer; M. A. B.; M.R.C.S., Salisbury; X. Z., Liverpool; Surgeon; Accoucheur.

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Western Morning News, Liverpool Courier, Chatham News, Englishman, Glasgow Herald, Temperance Chronicle, Hackney News, &c., have been received.

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